

Infinite Hermeneutics: Events, Globalization, and the Human Condition

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Boston College

The Graduate School of Arts and Sciences

Department of Philosophy

INFINITE HERMENEUTICS:
EVENTS, GLOBALIZATION, AND THE HUMAN CONDITION

A Dissertation

by

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Abstract

It has been held in philosophical practice that some matters of reflection have more import than others, and that some are so significant that they may be termed “first philosophy.” In contemporary Continental philosophy, the term “event” has become a watchword for a profound change in the orientation of philosophic thought. Indeed, one may say that the discourse surrounding events marks the first decisive development in philosophy since Martin Heidegger penned *Being and Time*. This is not to say, however, that any consensus has emerged concerning either the character of events, or more importantly what they entail for the meaning of human historical consciousness. To provide such statements, ones that have at least a relative superiority with respect to their rivals, might thus be considered the basic task for first philosophy today. It is to accomplish this double aim that the present work is devoted.

These two tasks, articulating the character of events and their significance for human historical consciousness, are here assayed by a movement that is itself double, by a movement of suspicion and affirmation. In the specific case, the present work undertakes a retrieval of Heidegger’s understanding of “*Ereignis*” (or event) after passing through a hermeneutics of suspicion, posed by the criticisms of the contemporary French philosopher Alain Badiou, and returning to an articulation of “Emergence” as a complementary hermeneutics of affirmation.

The method by which I undertake this inquiry is what may be called an “infinite hermeneutics,” which I intend to be opposed to “finite hermeneutics.” By this latter program, “finite hermeneutics,” I mean any form of philosophical hermeneutics that is committed to the thesis that human understanding (*Verstehen*) is finite, or that the objective of inquiry itself is finite, or both of these points. The thesis that human understanding is finite may be found in

Kant's proposal that human knowing is distinct from divine knowledge in the respect that human knowing is dependent on receptive intuition, and thus finite, while infinite knowledge is founded on a productive intuition. In the relevant sense, I argue, it may also be found in Heidegger's own thought. One of the major points of the present investigation is to demonstrate in what way a commitment to finitude is highly problematic, and that human knowing, human comprehension, and even the very character of what is known is not finite in any relevant sense. The motivation for such a departure is provided by the criticisms of Badiou, which are here treated as a moment of suspicion.

I begin the work with a "Prolegomenon," which reviews in detail the specific challenge Badiou has posed for phenomenological hermeneutics, or any other philosophical position that is committed to the notion that human thought or understanding is finite. As a "Prolegomenon," however, nothing positive for my own position is accomplished there; instead the net result of the study is to produce: (a) an argument against Heideggerian finite hermeneutics, (b) a summary critique of the Badiou's own position, and (c) a clear statement on the eight separate tasks that I set out to accomplish in the argument that follows.

The positive aspect of the text, the beginning of the movement of affirmation, thus occurs in "Part I: Infinite Hermeneutics," in which I present a defense of phenomenological hermeneutics as a viable philosophical method. In chapter three I begin by drawing on the work of Paul Ricoeur. My argument is that he is both the very first philosopher to articulate an infinite hermeneutics, and that this account, suitably elaborated throughout his career, is able to meet most of the specific challenges Badiou poses. There does remain, however, three separate points that Ricoeur's thought does not fully explore. In order to remedy those deficiencies, and in order

to demonstrate the relative advantage of my hermeneutical position with respect to its competitors, I thus move to produce a new model for hermeneutical thought.

Articulating the conditions for this model is the task for chapter four. My task here resolves into three parts. First, I argue for a Galoisian Revolution in phenomenological study, which sets forth a new between hermeneutics and phenomenology study. This relation, second, requires a rearticulation of phenomenological method such that it is “impersonal,” as Jean-Paul Sartre’s early work suggests. Additionally this relation, third, requires that one be attentive to the structures of consciousness, which is what completes the Galoisian Revolution. In order to support my account of an impersonal phenomenology I engage the contemporary Anglo-American discussions in the philosophy of mind concerning the character of first-person consciousness. In order to specify what is intended by a structure of first-person consciousness, provide a provisional phenomenology of eros.

In chapter five I move to articulate the structure of consciousness that serves as the third model for phenomenological hermeneutics. It is at this point that I engage with the work of Bernard Lonergan. My central contention in chapter five is that it is possible to retrieve Lonergan’s work on cognitional structure as a phenomenology of inquiry for hermeneutical purposes. Taken together, these points, the Ricoeurian defense of hermeneutics, the development of an impersonal phenomenology, and the retrieval of a phenomenology of inquiry, form the hard core of my proposal for infinite hermeneutics.

“Part II: On Worlds” concerns the fruits that I can reap from the harvest sown in Part I. In particular, I aim to develop an ecological sense of worlds in response to Badiou’s category-theoretic and Heidegger’s (early) existential world. My argument moves from an ecological account of natural worlds (chapter six), through a signifying account human worlds (chapter

seven), to an account of human historical consciousness and a consideration of catastrophes such as the Shoah and the Encounter (chapter eight). In each of these chapters I focus on developing an account of different kinds of Events, with the aim not only of providing a more serviceable account than my rivals, but also with the hopes of providing a new and better picture of world process.

The final section, “Part III: The Metaphysics of Excess” expresses the central Metaphysical claims of the work, especially those concerning Events and the peculiar form I call Emergence. This chapter, in short, constitutes the moment of affirmation in response to the moment of suspicion occasioned by Badiou’s criticism of phenomenological hermeneutics. Additionally, however, I produce an argument for the intelligible relation of cosmic space and time with human (lived) space and time, a statement on the new forms of causation entailed by the possibility of Events, and a new account of Truth (to rival Badiou and Heidegger’s). The work closes with a summary review of what I have achieved and what yet remains to be accomplished. Though as the title of the conclusion suggests, its main aim is to provide a new statement on the world-view that I work to articulate over the course of the investigation. That world-view, and this is the justification for the subtitle of the present work, is the trans-modern condition, which articulates the existential character of our modern globalized world.

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Text and Abbreviations

Badiou

- BE *L'être et l'événement*. Paris: Éditions du Seuil, 1988. *Being and Event*. Trans. Oliver Feltham. New York: Continuum, 2006.
- C *Conditions*. Paris: Éditions du Seuil, 1992. *Conditions*. Trans. Steven Corcoran. New York: Continuum Press, 2008.
- LW *Logiques des Mondes: L'être et l'événement, 2*. Paris: Éditions du Seuil, 2006. *Logics of Worlds: Being and Event II*. Trans. Alberto Toscano. New York: Continuum Press, 2009.
- ST *Court Traité D'Ontologie Transitoire*. Paris: Éditions du Seuil, 1998. *Briefings on Existence: A Short Treatise on Transitory Ontology*. Trans. Norman Madarasz. Albany: SUNY Press, 2006.

Heidegger

- BT *Sein und Zeit*. Tübingen: Max Niemeyer, 1972. *Being and Time*. Trans. John Macquarrie and Edward Robinson. New York: Harper and Row, 1962.
- CP *Beiträge zur Philosophie (vom Ereignis)*. Gesamtausgabe, Band 65. Frankfurt a.M.: Vittorio Klosterman, 1989. *Contributions to Philosophy (From Enowning)*. Trans. Parvis Emad and Kenneth Maly. Evanston: Northwestern University Press, 1999.

Lonergan

- I *Insight: An Essay on Human Understanding*. *Collected Works of Bernard Lonergan*, vol. 3. Eds. Frederick E. Crowe and Robert M. Doran. Toronto: University of Toronto Press, 1992.

Ricoeur

- CI *Le conflict des interpretations*. Paris: Éditions du Seuil, 1967. *The Conflict of Interpretations*. Ed. Don Ihde. Evanston: Northwestern University Press, 1972.
- MHF *La mémoire, l'histoire, l'oubli*. Paris: Éditions du Seuil, 2000. *Memory, History, and Forgetting*. Trans. Kathleen Blamey and David Pellauer. Chicago: University of Chicago Press, 2004.
- FTA *Du texte à l'action: Essais d'herméneutique II*. Paris: Éditions du Seuil, 1986. *From Text to Action: Essays in Hermeneutics II*. Trans. Kathleen Blamey and John B. Thompson. Evanston: Northwestern University Press, 1991.

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The Contemporary

“The greatest events and thoughts—but the greatest thoughts are the greatest events—are the last to be comprehended: the generations that are their contemporaries [*die Geschlechter, welche mit ihnen gleichzeitig sind*] do not *experience* these sorts of events—they live right past them.”

– Beyond Good and Evil §285¹

“This meditation too is untimely, because I am here attempting to understand as an illness, a defect, and a deficiency something of which our time is rightly proud—its historical culture—because I believe that we are all suffering from a consuming fever of history and ought at least to recognize that we are suffering from it.”

– On the Uses and Disadvantages of History for Life,
Forward²

For Nietzsche the contemporary, the one who lives at the same time as an event, is defined by a reference that is doubled, that is fissured. On the one hand, the contemporary is the one who cannot understand events, save until they are long past. He is the man who denies the existence of a star until, centuries later, its light finally arrives. He is synchronous with his age, and in this sense the contemporary is the laggard. On the other hand, the contemporary is the one who is dys-chronous, the one who is untimely because she recognizes the ills of her age. She too lives in an age, but only as a thorn in its side, eyes directed toward an event the light of which has yet to become visible. One can say, then, that the Contemporary of thought, the contemporary proper, lives in the time of what will have been, in the shadow of tomorrow’s day, in the space of the event.

Nietzsche’s assessment of the Contemporary leaves one with a question and a task. The task, the exhortation for all philosophers is the following: Be Contemporaries! Live beyond your

time, outside your place! Inhabit the world of thought and become aliens to your own! A question follows directly from this task: What does it mean to be a Contemporary today? What is the event of “our” time? How can “we” think it? If events “are” precisely what is not yet, if they in-sist in our worlds, rather than exist, how can “we” even address them?

There can be little doubt that today the term “event” has become a watchword for a profound change in the orientation of philosophic thought. It marks the first decisive development in philosophy since Heidegger penned *Being and Time*—that is, at least with respect to what may be called “first philosophy.” This is not to say, however, that any consensus has emerged concerning the character of events, or more importantly what they entail for the meaning of human historical consciousness. To provide such statements, ones that have at least a relative superiority with respect to their rivals, might thus be considered the basic task for first philosophy. It is to accomplish this double aim that the present work is devoted.

1. Though numerous philosophers have taken to articulating the significance of events especially for metaphysics, each of those who belong to the tradition of “Continental” philosophy does so by passing through a single point. This is the point that forced what has sometimes gone under the title of Heidegger’s “*Kehre*,” but may be called his “*Wendung*” or reversal with less scholarly prejudice.³ By reversal, then, I intend only the shift in Heidegger’s thought from his analysis of Dasein in *Being and Time* to his more direct approach to *die Sache Selbst*, or the thing itself, of his thought in his later work. The reason for this shift is that *Being and Time* remains caught in the movement of transcendental thought, despite its advances.

Not seeking to belabor a point already well known, let the following remarks suffice.⁴ In his July 1924 lecture “*Der Begriff der Zeit*,” a work which not only remarkably anticipates, but

also stands (according to Hans-Georg Gadamer) as the original form (*Urform*) of *Being and Time*, Heidegger addresses time in its relation to Dasein. After establishing many of the existentials that one finds in the *magnum opus*, one reaches the culmination of the lecture with Heidegger's statement: "Dasein, in its most extreme possibility of Being, is time itself [*die Zeit selbst* ist], not in time."⁵ This identity is problematic. For such a position follows too closely in the Kantian Critical tradition, which would also reduce all phenomena to a fundamental synthesis or final unity. Conceived in this way, Dasein would be no more than another version of ontotheological presence. And it is this metaphysics of presence, Heidegger argues, that is responsible for the leveling off of meaning in the contemporary world as well as the perils posed by technology. *Being and Time*, by contrast, asserts the identity differently: time is the meaning of the Being (*Sein*) of Dasein. The two new terms *meaning* and *Being* thus rewrite the identity. Is this change sufficient?

The answer that Heidegger seems to have come to himself is that it was not, and it is this estimation that forced Heidegger's "reversal." Recall that what Heidegger has in mind by the term "meaning" (*Sinn*) is "the upon-which" (*das Woraufhin*) of projections. Originally the term is introduced in the discussion of equipment (*Zeug*), an item of which only becomes understandable by reference to its context or structure (BT 151/192). *Das Woraufhin* reaches its most pivotal role, however, in the analysis of authentic care (§65), which serves to disclose Dasein as a whole. There he writes that "[m]eaning' signifies the 'upon-which' of a primary projection in terms of which something can be conceived in its possibility as that which it is. Projecting discloses possibilities—that is to say, it discloses the sort of thing that makes possible" (BT 324/371). The significance of this definition is double: first, it returns one to the

language and structure of transcendental philosophy, second it also retains the essential identity of Dasein and time.

I want to pause to reflect on why both these points follow. First, the language of transcendental philosophy is introduced through a discussion of possibilities. If “*das Woraufhin*” is that which makes possible, one appears to be speaking here of conditions for possibility. In this context, then, temporality would appear to be the condition for the possibility of care, thus repeating the structure of Kant’s first *Critique*, if not its doctrine. Second, if temporality is the meaning of care, and care the meaning of Dasein, then the identity of Dasein and time is retained. Heidegger even just comes out and writes this: “The meaning of Dasein’s Being is not something free-floating which is other than and ‘outside of’ itself, but is the self-understanding Dasein itself” (BT 325/372). Dasein originally disclosed to itself just is the meaning of the Being of Dasein, and since this meaning is temporality, the identity of the 1924 lecture is retained.

At this point I must be clear: both of these remarks only become problematic if Heidegger cannot correct them through the analyses that follow. The difficulty is that what follows is a double task of repetition. First, a repetition of the existential analytic itself is required in the terms of temporal analysis. By exhibiting the temporal sense of each structure uncovered in the existential analytic Heidegger completes the determination of the meaning of the Being of Dasein. Yet, second, a repetition of the temporal analysis in terms of the meaning of Being in general is required to complete the analysis of Being in terms of time, and (as the foregoing shows) to dis-integrate the identity of Dasein and time. This second task, however, was the goal of the never completed Division III, and so *Being and Time* remains a work haunted by its transcendental origins. *In short: if Heidegger’s thesis in Being and Time is that Being is*

time, time remains a function of Dasein, so that the work remains within the critical tradition by implication, though not by intention.

I call this site of impasse *Heidegger's point*.

Heidegger's shift to address the meaning of Being more directly, rather than through a preparatory analysis of Dasein, passes through this point by addressing the matter of his thought under the title of "*Ereignis*," or the event. Though he later (and often) changed the term he preferred, the Contemporary concern with events recalls his approach.

The present work, however, is not concerned with a correct articulation of Heidegger's *Ereignis* or whether subsequent thinkers have understood Heidegger rightly. I am not here engaged in an activity of commentary or philosophical scholarship. Rather, I hope to produce my own solution to the basic problem of (Continental) philosophy, my own way to pass through Heidegger's impasse. Because any such project will be founded on a series of assumptions, I pause to take a moment to lay out as clearly as I can which wagers sustain the investigation that follows.

2. A note about the character of the following wagers is perhaps in order to make them fully intelligible. On the one hand, they share an epistemic status akin to unsupported premises, since they are points from which the following argument will proceed. I cannot here make a case in their favor, and if one disagrees with them, then one has grounds for a rather serious disagreement with all of what follows. On the other hand, they are not *mere* assumptions, since it will be one of the major efforts of what follows to make good on them. They are like bets placed in the hope that they will pay off, that they will be illuminating and fruitful. Unlike mere assumptions, then, they have a kind of justification, which is to be assessed by their fruits and

their relative success in navigating philosophical problems. With this brief caveat in mind, the wagers that sustain the present work are the following.

First, *Heidegger's question concerning the meaning of Sein or his thinking on Ereignis still remains the point from which all philosophical reflection on metaphysics must depart.* This much, certainly, can already be gathered from the foregoing discussion of Heidegger's point and its significance for Continental philosophy. Yet, in stating it as a wager I am retrieving this point as one that holds universally for *all* philosophical inquiry, including especially that of Anglo-American philosophy. My wager here is that there is some sense (*Sinn*) to asking this kind of question, that it is not a false problem, that it cannot be reduced to linguistic analysis, and that any metaphysical investigation that neglects this question simply fails to ask any of the important questions concerning the character of being.

Second, *a post-positivist age in epistemology is unfolding.* By "post-positivist" I do not mean (only) that philosophy has moved beyond the claims of positivist authors such as August Comte or even A.J. Ayer. I mean that philosophical reflection on the character of knowing has broken with the epistemic *aims* of positivism. Principally, then, the current post-positivist age in epistemology is one that has seen no need to argue about the necessity of our epistemic statements. One argues, for example, that while physical laws have universal applicability, the necessity of those laws is something of which philosophers (at least) are suspicious.

The origins of this result are multiple, though its popular and most famous articulation is to be found above all in the work of Thomas Kuhn. My point here is not that Kuhn's philosophy of science is unsurpassable, but that he was the first to clearly demolish the epistemic pretensions of science as universally necessary, and that the consensus that scientific results were merely accretional. Furthermore, he did so on grounds that were rational and appealed to the character

of scientific inquiry itself rather than through some recourse to mystical insight or romantic feeling. While his account of paradigmatic revolution is not longer acceptable, he paved the way to an account of knowledge that broke with the *aim* of indefeasible knowledge. That similar points have been made in mathematics and even logic suggests that the coherence of the Kantian apriori is not viable, and that the task for all epistemic practices (of which philosophy is only one) is to provide reasonable grounds to accept defeasible arguments.

Third, *both Anglo-American and Continental philosophical practice has succeeded in conserving the legitimacy of questions concerning philosophical method.* The question of method today is not the same as it was with René Descartes, Bertrand Russell, or Edmund Husserl. This is to say, hardly anyone today believes that strict adherence to some philosophical method will yield results akin to mathematics or scientific investigation. Nevertheless, while contemporary philosophical practice has seen a proliferation in these methods, the proposals by some philosophers to avoid this question altogether evacuates the warrant by which philosophical claims might be considered legitimate. Today philosophic method limits the scope of argumentative conclusions such that any are to be evaluated in light of their rival competitors. While it is not normally the case that one can come to absolute evaluation concerning rival positions, it is often enough to propose relative superiority and defeasible results.

While this wager dashes the hopes of achieving some form of Hegelian absolute *Wissenschaft*, it at the same time makes a claim about a certain mode of discourse, namely the anti-philosophical. The term “anti-philosophical” is one that Alain Badiou has recently coined to designate those thinkers who would uphold the position that reality or being is an ultimate mystery and is to be approached as such, which is to say through metaphor and poetry. While the present emphasis on method does not proscribe philosophical reflection on such matters

(indeed, I shall engage in this task in what follows), any position that *terminates* in a metaphorical statement is to be regarded as anti-philosophical. The wager concerning method is thus additionally a wager that since Socrates it has been the case that philosophy has been engaged in the practice of *reasoned argument*, and to forego such reasoning in favor of poetical utterance as the terminal point of one's position is just to forego a philosophical approach to the matter under consideration.

3. These wagers pose an immediate question: just how is it that the present investigation aims to resolve *Heidegger's point*? What method would prove suitable for such use?

In the present investigation I shall make use of what has been called variously hermeneutic philosophy, or phenomenological hermeneutics. Yet, I shall not make use of hermeneutics in the way in which it has become most predominant, namely in its finite form as pioneered by Heidegger himself. Despite the fact that I shall address this point in detail in what follows, it is advisable at least to provide the reader with a jejune account of what is meant by the distinction between finite and infinite hermeneutics in this general introduction, since the matter concerns the title of the present work.

By "finite hermeneutics" I mean any form of philosophical hermeneutics that is committed to the thesis that human understanding (*Verstehen*) is finite, or that the objective of inquiry itself is finite, or both of these points. The thesis that human understanding is finite, is certainly much older than Heidegger, and may be found in Kant's thesis that human knowing is distinct from divine knowledge in the respect that human knowing is dependent on receptive intuition, and thus finite, while infinite knowledge is founded on a productive intuition. One of the major points of the present investigation is to argue that this account is substantially wrong,

and that human knowing, human comprehension, and even the very character of what is known is not finite in any relevant sense. The motivation for this departure stems from the need to reflect on the character of Events themselves, which is just what is occasioned by the need to resolve *Heidegger's point*.

If I am right in arguing that human comprehension is not finite, it follows that philosophical hermeneutics cannot be understood as the explication (*Auslegung*) of what is already precomprehended in Dasein's finite existence. Thus, in order to remain consistent I cannot make use of philosophical hermeneutics in the same way that Heidegger did. As a result, a second major concern of the present investigation is to produce a new philosophical method—one that I suggest deserves the title “infinite hermeneutics.”

I am not going to be so bold as to construct a new method from the ground up, but I am rather going to begin with the work of Paul Ricoeur, who in my estimation is the first philosopher to develop this new hermeneutics. Even in his early work one can find the grounds for this departure from finitude, and in the work of some of his best Anglophone students, such as Don Ihde and Richard Kearney, one finds some of the choicest fruits of this approach. What appears to me to be lacking thus far is a full articulation of the ways in which this new hermeneutics can address Events, especially in their scientific, metaphysical, and historical contexts. In short, the results of this new hermeneutics have yet to be brought to bear on *Heidegger's point*, and so have not yet shown what implications follow for first philosophy. In my estimation, the implications reveal a new conception of Events.

4. A final point about style is in order to guide the reader in what follows. One of the principle critiques of finite hermeneutics is leveled by Badiou, who in his work employs a fair number of

sophisticated mathematical concepts and techniques. In order to defend my account of infinite hermeneutics I shall thus have no choice but to address these arguments directly in their full mathematical detail. The result is that some of the central points of the present essay will be rather technical, and there is little I can do to remedy this matter. What I have done, and I have followed Badiou somewhat in this solution, is first to review my arguments as closely as I can with very little reference to the mathematical, logical, or scientific technicalities. I then produce roughly the same argument with the relevant details for proper evaluation. For those interested, I have also indicated along the way which texts might serve as the best introductory texts to these matters, and which presuppose very little previous training outside of a basic course in symbolic logic. My general aim has been to presuppose as little as possible by way of technical matter in producing the arguments proper, and this has had the effect of extending the length of the present work substantially. The defect of this approach is for those who are already competent in these matters. With respect to this audience, I ask their patience while I review what cannot but appear as a series of elementary points.

Beyond the technical arguments that one will find in the present essay, there is the rather more intractable problem of voice. I have chosen, following Ricoeur, to write the present work in a dialogical voice rather than a direct one. The reason for this choice, and this was presumably Ricoeur's reason as well, is that a basic hermeneutic point about philosophical inquiry is that it cannot be understood apart from its philosophical conditions. Each philosophical inquiry begins somewhere, and draws from some existing set of knowledge and meaning, which was established by other thinkers. To forego mentioning these thinkers, then, is not only to pass off as one's own what is not so novel, but to forget the very conditions that sustain one's inquiry in the first place. In what follows, I shall thus make my points largely by

drawing on a whole range of thinkers, including poets, artists, scientists, mathematicians, logicians, historians, and philosophers. In reviewing their arguments, one should understand their points to be making my own, unless I otherwise specify, though the weight of their connection is a matter for which I alone shall bear responsibility.

In addition to writing in a dialogical voice, however, I have been forced to write from a “moving viewpoint” as it were. This is a difficulty one finds whenever one addresses a topic of sufficient complexity, and though I have tried my best to make the present argument a linear one, I have failed rather remarkably at this task. In the course of the present inquiry I have found that time and again technical terms must be used before they are fully explained (I have *already* done this in this introduction by drawing a tacit distinction between events and Events!). Arguments made at one point, then, will only be fully comprehensible if one continues reading. Furthermore, one will find that while it may appear that I am addressing only one matter, I am in fact addressing two or three. This is especially the case with the chosen examples, by which I not only make a specific point, but also attempt to enact a larger one. I doubt that, upon reflection, the reader will find this all too bewildering, but I do caution that final judgments concerning the adequacy of the argument ought to be suspended until one completes at least the present text.

A final stylistic point concerns the partitioning or general plan of development for the present text. I begin this text with a “Prolegomenon,” which reviews in detail the specific challenge Badiou has posed for phenomenological hermeneutics, or any other philosophical position that is committed to the finitude of thought (including Kant and Hegel). As a “Prolegomenon,” however, nothing positive for my own position is accomplished there, instead the net result of the study is to produce: (a) an argument against Heideggerian finite

hermeneutics, (b) a summary critique of the Badiou's own position, and (c) a clear statement on the eight separate tasks that I set out to accomplish in the argument that follows.

The positive aspect of the text thus begins in "Part I: Infinite Hermeneutics," in which I begin with a defense of phenomenological hermeneutics as a viable philosophical method by drawing on the work of Ricoeur. There remain, however, three separate points that I argue Ricoeur's thought does not fully explore. In order to remedy those deficiencies, and in order to demonstrate the relative advantage of my hermeneutical position with respect to its competitors, I thus move to produce a new model for hermeneutical thought. This model is an explicitly phenomenological model, though in a peculiar sense. It is, following Jean-Paul Sartre's terminology, an "impersonal phenomenology," which is to say that it is a phenomenology that is carried out without the supposition of an ego as a constitutive feature of intentional first-person consciousness. From this point, I move to introduce the second major interlocutor of my investigation: Bernard Lonergan. My central contention in chapter five is that it is possible to retrieve Lonergan's thought as a phenomenology of inquiry for hermeneutical purposes. Taken together, these points, the Ricoeurian defense of hermeneutics, the development of an impersonal phenomenology, and the retrieval of a phenomenology of inquiry, form the hard core of my proposal for infinite hermeneutics.

"Part II: On Worlds" concerns the crop that I can reap from the harvest sown in Part I. In particular, I aim to develop an ecological sense of worlds in response to Badiou's category-theoretic and Heidegger's existential world. My argument moves from an ecological account of natural worlds (chapter six), through a signifying account human worlds (chapter seven), to an account of human historical consciousness and a consideration of catastrophes such as the Shoah and the Encounter (chapter eight). In each of these chapters I focus on developing an account of

different kinds of Events, with the aim not only of providing a more serviceable account than my rivals, but also with the hopes of providing a new and better picture of world process.

The final section, “Part III: The Metaphysics of Excess” expresses the central Metaphysical claims of the work, especially those concerning Events and the peculiar form I call Emergence. Additionally, however, I produce an argument for: the intelligible relation of cosmic space and time with human (lived) space and time, a statement on the new forms of causation entailed by the possibility of Events, and a new account of Truth (to rival Badiou and Heidegger’s). The work closes with a summary review of what I have achieved and what yet remains to be accomplished. Though as the title of the conclusion suggests, its main aim is to provide a new statement on the world-view that I work to articulate over the course of the investigation. That world-view, and this is the justification for the subtitle of the present work, is the trans-modern condition.

Prolegomenon

1

Finite Hermeneutics

Phenomenological hermeneutics is in a state of crisis. While there have always been detractors of this program, the recent criticisms have cut to the heart of the project: that human understanding (*Verstehen*) is finite. The critique is not the symmetrically opposite claim that human understanding is instead infinite, but rather that advances in mathematics long overlooked by philosophers have irrevocably changed the relation of the finite to the infinite in such a way that the current account of hermeneutics as a finite endeavor necessarily perpetuates the metaphysics of presence it so earnestly seeks to avoid. These charges are leveled most prominently by Badiou, and he unequivocally states that one of his central aims is “to finish up with the motif of finitude and its hermeneutical escort” (ST 21/30). Such are the stakes of what he has dubbed the “Cantorian Revolution” (BE 301/273). Because my aims are patently hermeneutic, these criticisms will have to be addressed. But perhaps more importantly, it must be recognized that Badiou’s rigorous innovations are not simply to be refuted and dismissed. Instead, they pose a chance for hermeneutics to renew itself and recover a broader scope that has been lost.

To accomplish this task a certain kind of philosophical analysis is needed. If it is possible to conceive of a tradition of thought as healthy, then a crisis might be compared to a dangerous illness. To redress it thus requires diagnosis before treatment, and it is just the aim of this chapter (and the following) to undertake that diagnosis. To state the point plainly, my hope in this chapter to establish the need to move from finite to infinite thought, from finite to infinite hermeneutics. My capital questions in this diagnosis are the following. First, in what way is

finitude constitutive of the contemporary hermeneutical enterprise? Second, how is it that the Cantorian Revolution shows a finitude to be untenable? Third, is this critique accurate, and if so to what extent? Finally, what implications follow for phenomenological hermeneutics?

The first portion of this chapter is devoted to answering the first question. This means that I am going to recount the (philosophical) story of just how hermeneutics was born from a commitment to finitude. Here I shall follow the development of hermeneutics in Heidegger's early break from Husserlian phenomenology.¹ Then I shall examine, rather briefly, the way in which the later Heidegger sought to radicalize this project. The second portion of the chapter concerns the Cantorian Revolution and answers the last three questions. At that point it will prove easy enough to develop the problematic of infinite thought and its implications for philosophical hermeneutics.

I. Finitude and the Critical Problem

In telling the story of the "birth" of philosophical hermeneutics, I do not hope to retell the story both Hans-Georg Gadamer and Paul Ricoeur recount. Their narratives concern how a regional discipline of Biblical exegesis came to take the place of first philosophy, first through an epistemological concern, and then, with Heidegger, through an ontological one. By contrast, I am looking for the arguments that support hermeneutics as a live philosophical option today, and so I only want to recall the philosophical justification for adhering to hermeneutics as a philosophical tradition. To do this I am going to look at the role finitude plays in both Heidegger's early work, where he inaugurates the project that is still recognized as phenomenological hermeneutics, and his later work, where he explicitly abandons the term

“hermeneutics” in favor of “thought.” In many ways, it really should not be necessary to argue that Heidegger’s thought, early and late, emerges from a commitment to finitude, since this one of the few theses that unites contemporary Heideggerian scholarship. But because “finitude” is a slippery term, and because it is precisely for this commitment that Heidegger is now being criticized, I am going to review *in detail* both how and why Heidegger places this notion to be the heart of his thought, at the heart of the hermeneutic tradition.

1. The Hermeneutics of the Reduction

My major effort here will be to show how, despite the manifest ambiguity of the term “finitude” in Heidegger’s thought, one sense is determinative: “*Verendlichung*,” or finitude-izing. I plan to show this in three steps. First, I begin with Heidegger’s statements on finitude in his *Kant and the Problem of Metaphysics*, which, despite being written after *Being and Time*, nevertheless exhibits some of his clearest statements on the matter. It should mollify any concerned with anachronism that this text was written immediately after *Being and Time* and during the same Marburg period of Heidegger’s thought. Using the points developed by reflection on that text, my task in showing how it is that these insights undergird his critique of Husserlian phenomenology will be simplified. What will emerge from this investigation is the way Heidegger’s commitment to finitude makes his hermeneutics (as opposed to say, Paul Ricoeur’s or Jacques Derrida’s) a *hermeneutics of the reduction*. As a final step, I shall turn to an analysis of *Being and Time* proper in order to outline the five-fold way finitude is implicated in this project, and how *Verendlichung* is the fundamental sense of these five distinct meanings.

(a) *Transcendent and Immanent Finitude*

In his essay “On the Essence of Ground,” Heidegger makes the illuminating statement that Kant introduces a new sense of finitude. For the Christian era prior to Kant, the finitude of beings was understood to mean that they were created by God. By contrast, for Kant such finitude “is interpreted with regard to the fact that these things exist for a finite knowing, and with regard to the extent to which they are possible objects for such knowing, i.e. for a knowing that must first of all let them be *given* to it as things that are already present at hand.”² Kantian finitude, then, means principally that the knower does *not* create the object. It is a finitude that is not dependent upon the infinite. Thus, one could say that it is *an immanent conception of finitude*, and that its most immediate context is as little theological as it is mathematical, but instead concerns the problem of transcendence.

It will be recalled that the central problem of the Neo-Kantians, to whom Heidegger was responding during this period of study, was that of transcendence: how does a knowing subject get out of its interiority in order to establish contact with an object that is both exterior to itself and held to be real? This was the so-called “Critical” or “*erkenntnistheoretische*” problem. However one proposed a solution to the problem would classify one’s philosophy as “realist” or “idealist.” Additionally, Kant’s thought itself directed paths, not necessarily distinct, for resolving this problem. The first path was ethical. In Kant’s *Critique of Practical Reason*, one is able to gain access to the three concerns of special metaphysics that were proscribed in the *Critique of Pure Reason*. This is to say, Kant recovers access to God, the World, and the Soul as necessary postulates of practical reason. That ethics might thus be considered a way to resolve the problem of transcendence became a staple approach in the philosophical thought that

followed Kant, and may be witnessed quite clearly in the early (and likely Schellingian) essay now entitled “The Earliest System-Program of German Idealism,” as well as in Max Scheler’s own value theory (to which Heidegger explicitly responded and denounced). The second path concerned philosophical anthropology. Kant, in his lectures on logic, quite famously summarized the goal of the critical project through three questions: “1) What can I know? 2) What ought I do? 3) For what may I hope?”³ He then proposed that all these questions might be summarized in one single question: “What is Man (*Was ist der Mensch*)?”⁴ This was the path that, quite notably, Ernst Cassirer pursued. My point in introducing this context is that, if one keeps in mind Heidegger’s concerns with the Neo-Kantians, one will see how it directs his peculiar retrieval (*Wiederholung*) of Kant in *Kant and the Problem of Metaphysics*.

In the language that Heidegger uses to interpret Kant, one may say that Kant’s central problem is to account for the possibility of the ontological synthesis, i.e. to account for how a finite or non-creative reason, which is therefore dependent on the receptivity of its object for knowledge, can transcend itself such that it knows the being of its object prior to any possible experience of this object. In order to demonstrate this possibility, Heidegger lays out three ways in which human knowing is finite for Kant. Heidegger begins by making sure to “hammer in” the point that for Kant “knowing is primarily intuiting (*Anschauung*).”⁵ For infinite or absolute knowing, this intuition of itself brings beings into being, while for finite knowing, the essential “character of the finitude of intuition is found in its receptivity.”⁶ For a human mind, however, one can only properly be said to know when the knower can make the intuition understandable to oneself and others, which requires communication. To communicate, the intuition must undergo a process of determining (*Bestimmen*), which presents the intuition “in general.” This universal representation is more presentative than the intuition, since it seizes several individuals at once, and may be

thus considered a “‘Representation (concept) of a representation’ (intuition).”⁷ This representative determination is a judgment, and is brought to pass by the understanding (*Verstand*). Such a process of universalizing representation, Heidegger notes, is what Kant means by thinking. Unlike intuition, then, thought is doubly finite: (i) because it represents intuitions it has only a mediated access to intuition, and (ii) it must take a circuitous route to make the several particulars conceptually representable, which is its discursiveness (*Diskursivität*).⁸ Finally, since both intuition and thought are required for knowledge they must be brought together in some synthesis. For such a synthesis to be possible, it is necessary that both intuition and thinking share a common class, namely representation.⁹ This synthesis (iii), which brings together two forms of finite representation, must itself be finite in an even more profound sense.

Heidegger’s aim, however, is not simply to recount Kant’s three forms of finitude that characterize transcendence. Rather, his stated task is to go deeper into the origins (*ursprünglicher*) of the Kantian problematic. Unlike Kant he is less concerned with the possibility of knowledge than “what is knowable in such knowledge.”¹⁰ Since finite knowledge is receptive, such a knower only knows beings that appear (*Erscheinendes*). Since these beings stand over and are opposed to the knower, what appears is called the “object” (*Gegenstand*).¹¹ Thus, appearances are objects for finite knowers. For an infinite knower this is not strictly the case, since such an opposition between the knower and the object requires a separation that is not possible when one creates the objects. To the infinite knower, the being that is known is manifest in itself (*an sich*). It is thus from the double perspective of infinite and finite knowers that Heidegger makes the statement that the thing-in-itself and the appearance are one and the same being. If Kant speaks of something “behind the appearance,” this

‘behind’ cannot mean that for finite knowledge as such, the thing itself still stands in opposition to it. ... Rather [it] expresses the fact that finite knowledge as finite necessarily conceals at the same time, and it conceals in advance so that the ‘thing in itself’ is not only imperfectly accessible, but is absolutely inaccessible to knowledge by its very essence.¹² Finite knowledge, then, both permits the object to be manifest, and (because it is finite) essentially requires that the object conceal itself too. What can be known for a finite transcendence necessarily has an element of negativity—of revealing and concealing.

This insight into the character of transcendence, *namely that it just is finitude itself and that this finitude essentially entails an element of negativity*, enables Heidegger to respond to the Neo-Kantian concern with transcendence. From the perspective of the finite knower, the thing-in-itself just *is* the concealment of appearing-beings. By approaching Kant in this way Heidegger has no need, like the Neo-Kantians, to look to practical reason in order to be put in touch with things-in-themselves, and furthermore he has no interest in where beings “come from.” Just as the traditional primacy of theoretical reason is subordinated to the power of the pure imagination, so too is that of practical reason. *The problematic of finitude is set within that of transcendence; it departs strictly from the Christian understanding of finitude in relation to the infinite Creator. Here what is important is that man’s access to objects, his transcendence, is possible by his way of being finite (Verendlichkeit).* Such finitude-izing is marked by a negativity that conceals in its revealing, and such revelation only occurs within a horizon that is itself temporal.

(b) *Reductions and Phenomena*

This Post-Kantian account of finitudizing may be understood to form the basis of Heidegger's critique of Husserlian phenomenology, and to make this matter clear I turn to Heidegger's account of phenomenological hermeneutics in the 1925 summer lecture course entitled *History of the Concept of Time: Prolegomena* delivered at the University of Marburg.

From both its content and from bibliographic sources, it is known that this work was crucial to the writing of *Being and Time*. For it is here that one finds both what Heidegger believes to be the central discoveries of phenomenology, and his central critique of Husserl's phenomenology. This critique is not that the reduction cannot be carried through, either because existence or language or something else still cannot be bracketed—this will be Derrida's criticism. Rather, at this point Heidegger argues that the reduction cannot ask the *Seinsfrage*, the question of the meaning of Being, *and* that it nevertheless must to do so. The development, then, is proposed as a result of an immanent critique of Husserl.

In order to undertake an immanent critique of phenomenology, Heidegger must first show what he takes over from Husserl. In particular, Heidegger is attracted to phenomenology for what he finds to be phenomenology's three principal discoveries: intentionality, categorical intuition, and the original sense of the apriori. These three discoveries are taken "together as connected among themselves and ultimately grounded in the first, in the discovery of intentionality."¹³ The phenomenological importance of intentionality is evident, since both categorical intuition and the original sense of the apriori have an intentional character. Yet, in his exposition of intentionality Heidegger additionally makes it clear that it resolves the Neo-Kantian "critical" (*erkenntnistheoritsche*) problem. The fundamental character of intentionality

escapes the dilemma of realism and idealism, since it holds that the “*basic constitution of intentionality [is] a reciprocal relation of belonging-together of intentio and intentum.*”¹⁴ This correlation dissolves the critical problem, for it is simply a mistake to suppose that the object as *intentum* is initially distinct from the *intentio*, and so in need of a means by which they can be brought into accord. While the Neo-Kantians accuse Husserl of metaphysical dogmatism, Heidegger argues that it is rather they who are dogmatic and do not attend to the things themselves.

Despite these sympathies with Husserl, Heidegger nevertheless argues that his teacher has left the character of the psychic undetermined, “so that of which intentionality is the structure was not brought out in the original manner demanded by intentionality.”¹⁵ This point will be the lynchpin of Heidegger’s critique of phenomenology.

To make his case not only that Husserlian phenomenology does not raise this question concerning the character of the psychic, but also that it cannot raise this question, Heidegger argues that the various reductions of the phenomenological method are themselves impediments to raising the question. Heidegger recalls that the phenomenological *epochē* is a matter of “not going along with” the thesis that the *intentia* of my *intentio* are part of a material, physical world.¹⁶ The transcendental reduction generalizes this *epochē* to “all possible compartments of consciousness,” and so just is the “securing of the sphere of [intentional] acts in the uniformity of a specific sphere.”¹⁷ But this stream of consciousness nevertheless remains *my* stream of consciousness, and therefore calls for an eidetic reduction, a reduction to the invariant aspects of any phenomenon just as it appears in consciousness. In this reduction the “unity of the stream of experience is now regarded ideatively. Every moment which specifies this individual stream as individual is suspended.”¹⁸ It thus disregards that the acts are mine and instead regards them

only with respect to their *what-content*. But if the very sense of the transcendental reduction “is precisely to make no use of the reality of the intentional,” then “the reduction is in principle inappropriate for determining the being of consciousness positively. The sense of the reduction involves precisely giving up the grounds upon which alone the question of the being of the intentional could be based.”¹⁹ Similarly, since the eidetic reduction prescind from particular lived experiences to focus on their *what-content*, the question of the being of intentionality gets lost precisely through it. It is the case, then, both *that* phenomenology does not raise the question of being, and that it *cannot do so* precisely because the reduction is the obstacle to the question.

What remains to be accomplished is that Heidegger must show that phenomenology *should* raise this question, and that it must do so on phenomenological grounds.

It is at this point in Heidegger’s immanent critique that the theme of finitude arises. In order to make his point that phenomenology should raise the question of being, Heidegger’s central point is a quotation by Husserl himself, which claims that the very stakes of the reduction are to fix and demonstrate the fundamental distinction among entities between being as consciousness and being as transcendent. Heidegger notes, however, that this “most radical distinction of being is drawn without actually inquiring into the being of the entities that enter into the distinction.”²⁰ Furthermore, if one presses for that to which the distinction between absolute being and reality amounts, or what it is that directs this distinction, one will find no answer. Phenomenology thus operates from a double neglect: (i) “*the question of the being of this specific entity, of the [intentional] act, is neglected,*” and (ii) “*the neglect of the sense of being itself.*”²¹ So it is that phenomenological research stands under the constraints of tradition, first, because it neglects the question of the sense of being, and second because Husserl’s very ideal of absolutely pure

consciousness is imported from Descartes.²² Phenomenology in attempting to escape such a tradition has proven to be quite unphenomenological.

What this deconstruction (*Abbau*) of Husserlian phenomenology reveals, however, is not simply a mistake. Rather, “these omissions serve to manifest the *history of our very Dasein*.”²³ Dasein has a specific tendency toward decadence (*Verfall*), and it is only through this mode of falling (*Verfallen*) that it first “really comes to its being when it rebels against this tendency.”²⁴ Dasein cannot, however, escape completely from this mode. Decadence thus both disables Dasein from asking what is most fundamental, and yet enables it to do so at the same time. Heidegger’s immanent critique of phenomenology, one can see, already employs the finite structure of hermeneutics as that which uncovers *because* it recovers. That the question of the sense of being is not itself just one more prejudice, is answered here as in *Being and Time*: even to ask the question already commits one to a pre-comprehension of the matter (*Sache*). And so the circle of hermeneutic inquiry is born from or on account of the immanent critique of the phenomenological reduction. *It is in this sense that it is a hermeneutics of the reduction*. But it is also born from an account of Dasein’s transcendence that is marked by the structure of finitude, by its way of being finite (*Verendlichkeit*). To give this sense of finitude its fullest articulation, however, one must look finally to *Being and Time* itself, which is what I turn to now.

2. *Verendlichkeit* in *Being and Time*

I have already shown why Heidegger’s project in *Being and Time* begins with the fact that *Dasein* already has a vague pre-comprehension of the meaning of being in reviewing the role of

finitude in his *History of the Concept of Time*. To restate the matter with the later language of *Kant and the Problem of Metaphysics*, such pre-comprehension just is Dasein's finite mode of immanent transcendence, such that appearing-beings reveal themselves in such a way that they are also marked by a concealing aspect. Since Dasein always already has an understanding of being, the task of *Being and Time* is one of interpretation (*Auslegung*), or explicating what is already grasped in this pre-conception (*Vor-begriff*).

How is this to be done? Such pre-comprehension marks Dasein as unique among beings, since it alone asks after the meaning of being. Dasein's ontological way of being, its ek-sistence or transcendence, then, grants it ontic priority among all other beings. One must thus investigate the meaning of Being by examining Dasein's existence, and this matter makes up the task that spans from §9 to §65.

My argument is that it is in this existential analytic that one finds that Dasein's transcendence is marked by finitude in a four-fold way: in fallenness, in thrownness, in what Heidegger calls the "hermeneutic situation," and in death. Additionally, this analysis also establishes that *die Sache selbst* of Heidegger's inquiry, the very aim of his thought, is finite in a relevant sense. Because the meaning of *Sein* is itself finite, or finitudizing, there are really five senses of finitude operative in Heidegger's thought, and I hope to show that the other four senses gain their determination through this final one.

(a) *Four Initial Senses of Finitude*

To begin, I note how fallenness and thrownness are related aspects of Dasein's finitude. Because Dasein itself is finite, such pre-comprehension can never be complete. While Dasein is a

question to itself, it always dwells among beings and comports itself to them. In this way Dasein is essentially referred (*angewiesen*) to beings, and as referred depends upon them.²⁵ Similarly, since Dasein is not the source of its own being but always finds itself as an already existing fact. Nevertheless “the ‘whence’ and the ‘whither’ [of this facticity always] remain in darkness” (BT 134/173).²⁶ Both these aspects, namely referential dependence and incapacity to master one’s own origin, thus make up what Heidegger calls thrownness. Given the above exposition of Kant, one can see that these two aspects amount to an existential-ontological retrieval of Kantian receptive finitude. The twist is that for Heidegger such finitude proves to be an abiding characteristic of Dasein’s existence in the world; Dasein is always absorbed in the world through idle chatter, curiosity, and ambiguity. This tendency for absorption in beings is fallenness (BT 175/220).

These two aspects of Dasein’s existent, then, establish the need to retrieve Dasein from its ordinary fallen engagements, but they also already presuppose what Heidegger calls the “hermeneutic situation.” For even Dasein’s most mundane and inauthentic projections into the complex of relations among tools and their various equipmental contexts presupposes a more radical second projection on a whereunto (*das Woraufhin*) for the meaning of being. As understanding (*verstehen*), “Dasein projects its Being upon possibilities,” which is to say that the understanding, something always pragmatic and existential and not principally theoretical, is a projective horizon in which things are set free to be their possibilities (BT 148/188). Such understanding is related to interpretation as the less determinate to the more determinate, so that interpretation is “the working-out (*Ausarbeitung*) of possibilities projected in understanding” (BT 148/189). Since it is simply a development of understanding, interpretation is not a form of knowledge that is more thematic or conceptual. Like understanding, it is something we already

possess and remains pre-conceptual. What is thus made to stand out in interpretation is the *as* of something ready-to-hand.

An example might help clarify this matter. In teaching Heidegger to my students I usually like to point to my desk at the front of the class and ask them: “what is this?” Invariably, they tell me it is a desk. I then sit on the desk and ask them whether it is not now a chair, and the response is (again invariably) confusion. In Heideggerianese, what I have done performatively is interpreted this being that is usually called a “desk.” By sitting on it, I am no longer using it to support my writing or lecture notes, and so I have changed its character as being ready-to-hand. Yet, in bringing out this change in its ready-at-hand character, I have highlighted its *as* character (when a desk at least). When it is understood *as* an item ready-to-hand, i.e., in its in-order-to (*um zu*), it is interpreted, and one can see that this interpretation is in no way theoretical.

The working out of this understanding into interpretation, famously, makes up the three parts of the hermeneutic situation: fore-having (*Vorhabe*), fore-sight (*Vor-sicht*), and fore-grasping (*Vor-griff*) (BT 150/191). All the terms concern how in order to project a being adequately one must have, see, or grasp it in advance. Each term, however, indicates something distinct. Fore-having concerns the need to have the *whole* of an entity before one in order to interpret it (BT 232/275). For example, I cannot interpret a hammer unless I have before me the whole of the system of involvements in which it belongs, such as a tool shed, nails, items to be hammered together, etc. Dasein’s finite understanding, then, is essentially holistic. Fore-sight, Heidegger writes, “‘takes the first cut’ out of what has been taken into our fore-having, and it does so with a view to a definite way in which this can be interpreted” (BT 150/191). To use the hammer example again, one must not only have the object ready-to-hand before oneself, but one must have seen already how it can be used for hammering this or that thing. Finally, fore-grasping, is to have at one’s

disposal a system of articulated of concepts (*Begriffen*) by which one can grasp the being. So fore-grasping is related to fore-sight as that which articulates the kind of Being the latter sees. Fore-sight provides “the *unity* of those structural items” that fore-grasping conceptually articulates (BT 232/275).

What marks the fore-structures as finite? The principle answer concerns the prefix “*vor-*,” which indicates that Dasein must already somehow understand and yet not understand. Such a structure of interpretation, then, is marked essentially by a negative element that both allows things to show themselves, and yet also allows them to hide themselves. It is this account of understanding and interpretation that permits Heidegger to write that “*Dasein is ‘in the truth’*” (BT 221/263). For the very structure of interpretation is the structure of *a-lētheia*; it both discloses and sinks back into hiddenness (*lanthanein*). This liminal structure of enabling and disabling was shown above to mark the most profound way in which phenomena were finite in Heidegger’s interpretation of Kant. Here one finds the same structure as constitutive of Dasein’s pre-comprehension.

Now it is in order to grasp Dasein as a whole that the existential analysis of Dasein in its everydayness (*Alltäglichkeit*) proves to be insufficient. Only an examination of the limit situation of death, Heidegger argues, will suffice to bring the whole of Dasein before our fore-sight. Being-towards-death, thus completes the fourth way in which the existential analytic is committed to finitude. In his analysis of Being-towards-death, Heidegger explicates the structure of anticipation (*Vorlaufen*), since it is in death that Dasein is projected toward its own end. Death, as Dasein’s final and uttermost possibility, is the possibility to be no more (*Nicht-mehr-da-sein*), and so constitutes the very possibility of Dasein’s impossibility. It is in this sense that death is a limit. But it is not a simple limit to one’s possibilities. Rather, it serves to make

Dasein whole only projectively, as a being of care and not as something present. Dasein is brought back from its fallenness in everydayness, recalled from inauthenticity to authenticity, precisely by this limit situation. The limit is thus distributed throughout Dasein's existence and so does not remain a simple threshold.

(b) The Meaning of Sein

Having proceeded through four of the principle ways in which *Being and Time* makes use of finitude, some crucial question still remain. Principle among these is the following: how exactly does such authenticity come to pass, especially if Dasein is proximally and for the most part fallen? In answer to this question, one finds that the analysis of Division I lacked not only completeness but also radicality. To answer both how authenticity comes to pass and to achieve sufficient radicality, Heidegger undertakes a phenomenological confirmation of Dasein's capacity for authentic potentiality in the call of conscience (§57). It is the phenomenon of "uncanniness" (*Unheimlichkeit*) which tears one out of tranquilized everydayness and confronts one with the nothingness of Being-in-the-world. In commenting on this function, John Caputo thus notes that uncanniness is the "middle term between the 'call' and 'care.'"²⁷ The call issues both *from* me and yet *over* me, so that in hearing this call, anxious Dasein is summoned back to itself from out of the "they" (BT 276/320). The essential structure of hearing this call is "resoluteness," and it is in such resoluteness that Dasein projects itself upon its potentiality for Being, and so achieves its authenticity (BT 298/343). These moves remedy the incompleteness of the hermeneutic situation by setting a table of existentialia before our fore-conception.

Heidegger is thus prepared to characterize Dasein's authentic Being in terms of temporality (§65), which completes the existential analytic.

The provisional analysis of Division I, and in particular §41, established that the Being of Dasein was care (*Sorge*). The aim of §65 is to explicate how the meaning of care is temporality. This paragraph is decisive since it serves as a transition from those preparatory analyses of an originary interpretation of Dasein to that interpretation itself. Such an interpretation will be carried out by an analysis of authentic care, or more precisely authentic care understood as anticipatory resoluteness. But before it can be shown that temporality is the meaning of the Being of Dasein, one must first address what is meant by meaning (*Sinn*).

One must be careful here since the matter itself (*die Sache selbst*) of Heidegger's whole enterprise is now put in question. Heidegger writes that the term 'meaning' "signifies the 'upon-which' [*das Woraufhin*] of a primary projection in terms of which something can be conceived in its possibility as that which it is" (BT 324/371). What this answer indicates is that when Heidegger asks after the meaning of Being, *die Sache selbst* of his inquiry, he is not after Being but something else. Consider the following closely related statement:

All ontical experience of entities—both circumspective calculation of the ready-to-hand, and positive scientific cognition of the present-at-hand—is based upon projections of the Being of the corresponding entities—projections which in every case are more or less transparent. But in these projections there lies hidden the "upon-which" of the projection; and on this, as it were, the understanding of Being nourishes itself (BT 324/371).

Here one clearly finds three levels: (1) the ontical experience of entities, which includes both present-at-hand and ready-at-hand experience, (2) the Being of those entities, and (3) the “upon-which” or meaning of the Being of those entities. Heidegger’s hermeneutics, then, is beyond both beings and Being; it addresses *das Woraufhin* of Being. Heidegger was never concerned with a simple beings/Being distinction, but a triple beings/Being/meaning distinction. To provide a concrete example consider the following scenario. In nailing my own deck together I could use my hammer, but if this item is lost or out of place, I might decide to resort to rather primitive carpentry tactics, and use any number of my other tools, such as the butt of my screwdriver, or even a suitably sized rock. In this case the Being of the rock is that of a hammer. The rock “is” a hammer. That is to say, the “is” means “makes sense *as*,” the rock makes sense as a hammer. Dasein enjoys a categorical intuition of this “is,” but as Heidegger pointed out in his 1925 summer lecture course, such an observation fails to put the Being of such an intuition in question. The meaning (*das Woraufhin*) of the Being (making-sense-as) of the being (the rock) is quite distinct from such categorical intuition. It is what makes Being possible; it is that which gives Being. This was the object of Heidegger’s inquiry—expressed in one way at least.

To return to the matter of §65, Heidegger is interested in showing that the meaning of care, that is the Being of Dasein, is temporality. He does this by examining the three aspects of its structure. First, authentic Dasein comes towards its own deepest possibilities as projected, and hence is futural (*zukunftig*). Second, as referentially dependent or thrown into the world, Dasein carries a past with it. This past (*Gewesenheit*), however, is not the ontic accumulation of prior occurrences, but rather what Dasein has always already been. Such a past is reciprocally related to futurity, since Dasein only comes towards itself in its future authentic possibilities by coming back to what it has been all along. In short Dasein’s coming towards is a retrieval of

itself (BT 325/373). Finally, Dasein either succeeds or fails to come back to itself authentically in the present moment. Dasein acts decisively and either “makes present” (*gegen-wartigen*), or becomes immersed in its circumstances, in fallenness. Together, these analyses almost make up all the aspects of the phenomenon of temporality. I write “almost,” since they must be broadened from authentic care to care as such. This is done by showing that the primary meaning of existentiality is the future; the primary meaning of facticity is the past, while the primary meaning of falling is also included in the future. Heidegger is thus able to conclude that “[t]he primordial structure of care lies in temporality” (BT 327/375).

Now that Heidegger has determined that temporality is the meaning of care, and care the meaning of Being, it is clear that temporality is the meaning of Being.²⁸ The meaning of the Being of Dasein, then, is nothing more than Dasein itself as originally disclosed to itself. Here one finds that famous and problematic identity of Dasein and time—one which Heidegger later in his life will seek to dis-integrate. At this point, however, he proceeds to limn three determinations of temporality. First, he is careful to emphasize that temporality is not a being at all, for this would fail to recognize precisely what is at stake in Heidegger’s inquiry, as I outlined in the tripartite distinction above. Second, Heidegger shows that the specific characters of the phenomena that constitute temporality, the characters of “toward-oneself,” “back to,” and “alongside,” show that temporality is ecstatic. It is an originary outside-itself, or in more Kantian language, an a priori transcendence. Finally, and this is the point that will concern me most, Heidegger determines that temporality is *finite*. By making this point Heidegger does not mean that time stops. Rather, he links time to the finitude of being-towards-death. From the foregoing analyses, it can be seen that future has ecstatic priority over the other ecstasies. Death, which is the unsurpassable possibility of one’s impossibilities serves to close one’s future. Or

rather, an authentic future “closes one’s potentiality-for-being [*das Seinkönnen schliesst*]; that is to say, the future itself is closed [*geschlossen*] to one, and as such it makes possible the resolute existentiell understanding of nullity” (BT 330/379). *What marks the aim of Heidegger’s inquiry as finite in Being and Time, then, is that temporality, or the primordial phenomenon of time, is itself finite.*

This finitude of temporality, however, is not a simple limit. Being-towards-death distributes the limit throughout one’s life, and since it is precisely this being-towards-death that marks temporality as finite, temporality can have no other structure. Temporality is thus finite in the sense of finitudizing, in the sense of *Verendlichung*. Of all the meanings of finitude found in *Being and Time*, it thus seems to me that the sense of finitude as *Verendlichung* is the most profound. Since temporality is the meaning of Being, it marks *die Sache selbst* of Heidegger’s inquiry, i.e., the very matter that gives Being or makes it possible, not simply as “something” having a finitudizing structure, but rather as nothing other than that structur-ing itself. Stated differently, *the meaning of Being in Being and Time is nothing but the process of finitudizing.*

What I take the foregoing to have demonstrated are the five separate ways in which finitude is implicated in Heidegger’s thought in *Being and Time*, as well as the sources for such finitude in two central texts also of the Marburg period. I have tried both to maintain the complexity of his thought while also drawing out what I believe is the central sense of finitude for Heidegger, namely finitudizing. Additionally, I have tried to show how this finitudizing is related to hermeneutics in the Marburg period: hermeneutics is a transcendental pre-understanding (read: fore-structured grasp) of the where-unto of Being. Since the fore-structure exhibits Dasein’s most fundamental sense of finitudizing, the upon which of Being’s projection is also finite. Yet, and here is the rub, since the fore-structure is Dasein’s projection, such a position cannot be

maintained, since it would reduce the meaning of Being to an aspect of Dasein. These are the considerations that make up what I rather briefly in the introduction called *Heidegger's point*.

It really is no exaggeration to claim that every major development in Continental philosophy can be seen to depart from this impasse in *Being and Time*, and my own humble enterprise will be no different. To depart from it intelligently, that is to say, to depart in a way that will not repeat this impasse, I want now to explore Heidegger's own proposal to resolve this point, which to his mind required demoting not only the status of Dasein, but also eliminating "hermeneutics" as at least a label for the method of his thought.

3. The Hermeneutics of Destiny

In turning to Heidegger's later thought and his so called "reversal" I have a double aim. First, I aim to show how *die Sache Selbst* of Heidegger's thought remains principally the same even after his change in focus. To narrow the scope of this investigation, I shall concentrate on his sense of "*Lichtung*" or "clearing." Then I examine how this affects his later conception of hermeneutics, since he disavows his earlier form. My thesis is simple: *the investigation into the finitudizing of Dasein is transposed onto the finitudizing of the appearance of phenomena themselves. Thus, in both his early and late thought Heidegger's hermeneutics remains committed to a conception of finitude.*

(a) The Clearing

Almost forty years after *Being and Time* Heidegger delivered a seminar with the title of the projected third division “Time and Being,” but he did not aim to make good on the promissory note signed all those years ago. Time is no longer thought as the meaning or horizon of Being. Instead of the identity of time and Dasein, or better of time as the meaning of the Being of Dasein, he will propose to think the relation of time to the clearing as *Ereignis*. Given this new series of relations, “man” can now be thought only insofar as he stands within the time of the clearing. Heidegger is at pains to show how time can be thought as the clearing in this lecture, but before I pass on to a consideration of the clearing (and in doing so elucidate these new relations), I would like to note some preliminary continuities in Heidegger’s thinking on finitude.

In the protocol to the seminar of “Time and Being,” Heidegger establishes a somewhat puzzling point of continuity with his earlier work. He writes:

The finitude of Being was first spoken of in the book on Kant. The finitude of Appropriation [*Ereignis*], of Being, of the Fourfold hinted at during the seminar is nevertheless different from the finitude spoken of in the book on Kant, in that it is no longer thought in terms of the relation to the infinite, but rather is finitude in itself: finitude, end, limit, one’s own—to be secure in one’s own. The new concept of finitude is thought in this manner—that is, in terms of Appropriation itself, in terms of the concept of one’s own.²⁹

What is straightforward about this statement, and what is consistent with Heidegger’s earlier thought on the finitude of being, is that his conception has nothing to do with the infinite. It is beyond both the Christian notion of infinity and what in his lecture course on Parmenides he

identifies as Rilke's understanding of the Open as constant progression or "without stopping at a limit."³⁰ Also, Heidegger's finitude must be thought immanently or with respect to itself, which is consonant with his anti-Platonist project. What is puzzling is that Heidegger *did* state, as was shown above, that he thought Kant broke with such a Christian understanding of finitude. It was a non-quantitative notion, free from reference to an outside and so thought in terms of itself (i.e. immanent), and even related to an essential negativity. One may understand why Heidegger nevertheless maintains that Kant did not break free of Christian finitism if one recalls that, for Heidegger, Kant shrunk back from the abyss that he discovered in the deduction to the first edition of the *Critique of Pure Reason*. If he had an insight into something beyond Christian finitism, he nevertheless failed to retain it. The passage thus provides three points of continuity with his Marburg thinking of finitude, namely that it has nothing to do with the Christian infinite, that it is thought immanently, and that the finitude of *Ereignis* as thought with respect to itself is a limit. Does this mean that *Ereignis* has the character of *Verendlichkeit*? This much is not yet clear. And so to get a better understanding of the sense of "limit," I turn to his statements on the clearing. I could turn to an examination of the clearing within the seminar on "Time and Being," but the term is not clearly described there. Rather, the lecture that provides the best account of this notion is "The End of Philosophy and the Task for Thinking," which is delivered around the same time.

In this lecture Heidegger carries out a regressive analysis in two stages in order to explain what he means by "clearing," which he claims the Greeks named *alētheia*. He begins with the speculative dialectic mode of philosophy, in which the matter "of philosophy comes to appear [*Scheinen*] of itself and for itself, and thus becomes present."³¹ The first step of regress occurs by showing that any such shining necessarily occurs in some light (*in einer Helle*). This is to

say, something can appear only within a certain brightness, only if there is some illumination. This much is *not* foreign to metaphysics. It is for this reason that Heidegger had earlier in the essay addressed Plato. That the shining of the *eidōs* presupposes light is precisely what Plato undertook to think. The second step is taken when Heidegger writes the following: “But brightness in its turn rests within something open, something free, which it might illuminate [*erhellen*] here and there, now and then. Brightness plays in the open, and wars there with darkness.”³² Here Heidegger makes the decisive move back to what remains unthought in metaphysics, i.e. back to the openness in which the brightness plays. It is in speaking of this openness, which grants any possible letting-shine, that Heidegger introduces the term “*Lichtung*.” It is derived from the verb “*lichten*,” which means principally to thin out, or to lift, and so is opposed to the experience of a dense forest. It thus has nothing, either linguistically or factually, to do with the adjective “*licht*” or “light” in the sense of illumination. To fail to recognize this difference is to fail to recognize the difference, that third “thing,” between Being and beings. The clearing must already prevail for there to be any lightness or darkness. It is necessarily not a form of presence, but that by which what appears is able to appear. The task of philosophy at the end of metaphysics, then, is to think this clearing.

Now, one might ask, in what sense is the clearing finite? First, Heidegger states that the Greek term for the clearing was *alētheia*, which I have already noted is the finite structure of truth as the concealing of appearing beings. But the clearing is more than either the negative moment within lighting, or the interplay of negative and positive moments, since the clearing is what enables the play of both light and dark. Similarly, the finitude of *alētheia* must be thought as more than simply the structure of concealing in revealing. It is important to note that thinking the clearing, for Heidegger, is what is left to non-philosophy, or philosophy after metaphysics.

One attains this thinking precisely by regressing (or better transgressing) to the limit of metaphysics. There is a double transgression, from beings to Being, and from Being to the clearing. One again has the triple structure found in *Being and Time*. Yet, the clearing, understood as the clearing of Being is not another being beyond Being, not some new immediacy. Heidegger writes: “We must think *aletheia*, unconcealment, as the opening which first grants Being and thinking and their presence to and for each other.”³³ The transgression to the clearing, then, must think what metaphysics thinks, Being as Being, but also must cross over to the clearing that encircles Being. Yet, it cannot simply remain at some new item, some new Being, on pain of making the clearing another form of presence, but must return to what is encircled, to what shines in the space of the clearing. The transgression, then, is a double movement, not a simple threshold. And so it distributes that limit throughout the experience of thought as that which determines how one is to approach the Being of beings. The clearing thus exhibits the same structure of finitude that one finds in Heidegger’s earlier work: *Verendlichkeit*. The great difference here is that it is not thought as a near identity with Dasein, but rather Dasein must be thought in terms of it.

Such a move, which disentangles Dasein and *die Sache Selbst* of Heidegger’s inquiry, also spells the end of the hermeneutics of the reduction. This is not to say that nothing of the hermeneutic circle remains. The clearing is a “space” in which one already implicitly stands, and of which one is not explicitly aware. Heidegger’s advance over the history of metaphysics is precisely to think this clearing and not simply name it, as the Greeks did with *aletheia*. Such a circular motion, however, is not that of *Being and Time*. One can never get beyond the clearing; it cannot come within the grips of the fore-structures. “Rather, *aletheia*, unconcealment thought as opening, first grants the possibility of truth. For truth itself, just as Being and thinking, can

only be what it is in the element of the opening.”³⁴ Or a little later Heidegger writes: “Only what *aletheia* as opening grants is experienced and thought, not what it is as such.”³⁵ Heidegger’s earlier transcendental pre-comprehension is thus transformed into a pre-possession of thought by the clearing. It is transformed into man’s belonging to the clearing, and so it can now be said that Being and man belong together. This is the central point: “[t]he task of thinking [now is] the surrender of previous thinking to the determination of the matter of thinking.”³⁶ All willing, constructing, or projecting of the fore-structures, of horizontal schemas, must be relinquished, since man is now appropriated into thinking.

(b) *Destiny*

Given the foregoing critique of hermeneutics, I shall look to the surprising way hermeneutics remains possible in Heidegger’s thought. There is a shorter piece entitled “A Dialogue on Language,” in which Heidegger appears as the Inquirer in dialogue with a Japanese thinker. While they focus primarily on the character of language, among the topics they discuss is hermeneutics, or at least interpretation, and it is this matter that I shall focus on here.

Heidegger raises the matter of hermeutics, rather characteristically through an etymological analysis, as follows:

The expression “hermeneutic” derives from the Greek verb *hermeneuein*. That verb is related to the noun *hemeneus*, which is referable to the name of the god Hermes by a playful thinking that is more compelling than the rigor of science. Hermes is the divine messenger. He brings the message of destiny [*Geschick*];

hermeneuein is that exposition which brings tidings because it can listen to a message. Such exposition becomes the interpretation of what has been said earlier by the poets who, according to Socrates in Plato's *Ion* (534c), *hermes eisin ton theon*—"are messengers of the gods."³⁷

The term "hermeneutics" is here retrieved not as a matter of interpretive fore-structures, but rather in terms of the destining of Being (*Seinsgeschick*). Like the messenger god Hermes, who brings the messages of the gods (usually Zeus) to men, so too the hermeneut is to interpret the destinies, the various epochal configurations of Being, as they are sent. Hermeneutics, then, has nothing to do with the transcendental anticipatory projection of *Being and Time*, but instead concerns the hearing of a message. In this sense, it is a hermeneutics of destiny.

Two qualifications to this hermeneutics of destiny are now necessary. First, the sendings are not *from* Being, some mystical big essence, but *of* Being. This is to say the *Lichtung*, or *Ereignis*, or what he here variously calls "language" or "*Koto ba*," is the structuring of these sendings. "J: Man then realizes his nature as man by corresponding to the call of the two-fold (*die Zwiefalt*), and bears witness to it in its message./ I: Accordingly, what prevails in and bears up the relation of human nature to the two-fold is language. Language defines the hermeneutic relation."³⁸ The two-fold is the difference between Being and beings, and it is language that defines this relation. Thus, second, man finds his task as what is necessary to sustain the hermeneutic relation of what is sent his way. The Inquirer and the Japanese, finishing each other's sentences, state this quite clearly: "J: [the two-fold] cannot be explained in terms of presence, nor in terms of present beings, nor in terms of the relation of the two. I: Because it is only the two-fold itself which unfolds the clarity, that is the clearing in which present beings as

such and presence can be discerned by man.”³⁹ To state the transformation of hermeneutics in a sentence, it is the following: *the hermeneutic circle is no longer that of projective pre-understanding, but the relation, the circulation of Being and Dasein, of the destiny of Being, of the call from the two-fold, and man who is the being that bears that message.* Hermeneutics, then, unfolds from the *finitudizing* of *Ereignis*.

While Heidegger thus departs from his earlier conception of pre-comprehensive hermeneutics, the hermeneutics of *verstehen*, his later hermeneutics of destiny remains possible precisely because it is committed to the same structure of finitudizing that sustained his earlier inquiry. What this means, in a line, is that if the structure of finitudizing is somehow imperiled by what Badiou has termed the Cantorian Revolution, then both Heidegger’s early and later thought are equally imperiled.

II. Post-Cantorian Philosophy

At this point I need to show just what is problematic about this commitment to finitude. While my own work is hermeneutical, I am convinced that Badiou is right about his critique, even if the character of this critique has been somewhat obscured by its technical exposition. Heidegger radicalized the Kantian sense of finitude in order to overcome ontotheology—that way of understanding Being that is the source of contemporary nihilism and technologization. What remained constant in his thought was his commitment to finitude, and what changed was his estimation of Dasein as part of the solution to this problem. Badiou’s argument, by contrast, is that a focus on human subjectivity *is* important, and that what was problematic was Heidegger’s commitment to finitude.

There are, as far as I can tell, four separate (but related) arguments that Badiou makes to support his position. Given the technicality of Badiou's position, however, I shall only address three here.⁴⁰ Even for these three arguments the task is not an easy one for at least four reasons. First, these arguments are in need of reconstruction. Badiou has developed them over the course of more than two decades and across dozens of books, which requires a certain amount of piecing together from various sources. Additionally, these arguments are ultimately not detachable from Badiou's mathematical ontology, which is straightforwardly the foundation of all his thought. My response to these problems is to reconstruct the arguments systematically, and to prescind from the multiple developments in Badiou's thoughts. Furthermore, I shall try initially to explain them without recourse to his mathematical ontology (§3), then I shall later establish the set-theoretical warrant for these claims (§4). The third reason concerns an historical development in Badiou's thought from which I cannot prescind. In *Logics of Worlds* Badiou abandons arguing for one of his points and instead chooses simply to endorse Quentin Meillassoux's critique of "correlationism" (LW 129/115). In short, while Badiou had initially developed an argument along the lines of what I below call "The Ancestral Problem," he has now taken to straightforwardly endorsing Meillassoux's criticism as his own. Instead of reconstructing this argument from Badiou's own works, then, I shall look to Meillassoux's arguments in his recent *After Finitude*. A final point of concern is that it does not appear to me that the three arguments presented below are entirely correct on their own. In order for these three arguments to hit their mark, I think that some further philosophical work is necessary. This work is something that I propose at my own risk, though I take the initial point of departure from Paul Ricoeur's own critique of Heidegger. Thus, in addition to the three problems Badiou poses for finitude, I add my own, which I term *The Regression Problem* (§5). Taken together, I think

these four arguments make a strong case for the abandonment of finitude as characteristic of thought (especially philosophical thought). I begin, then, with the Badiouian critique of finitude, which, to be clear, include's Meillassoux' own critique of correlationism.

3. The Critique of Finitude

What Badiou has termed the “Cantorian Revolution” has both a positive and a negative moment.⁴¹ Positively, he proposes a new onto-logy, a new account of being as well as a new sense of rationality. Negatively, and this will be my immediate focus, he presents a critique of finitude in all its relevant forms as it pervades both contemporary Continental and Anglo-American thought. My wager here is that I can present this negative moment as a series of problems for reflective thought, arguments intended to stymie the continued reliance on finitude that so shaped philosophical reflection in the 20th century. Because Meillassoux's contribution is critical to Badiou's thought, and because it is the clearest I begin with it.

(a) The Ancestral Problem

Meillassoux in his little book *After Finitude* aims to awaken contemporary philosophers from their dogmatic slumber. “If Hume's problem woke Kant from his dogmatic slumber,” he writes, “we can only hope that the problem of ancestrality succeeds in waking us from our correlationist slumber, by enjoining us to reconcile thought and the absolute.”⁴² The lynchpin of his argument is thus his critique of “correlationism,” which though not exactly equivalent to “finitude” is closely related.

Briefly, a “correlationist” is anyone who holds that thought and what is (e.g. being, reality, language, the phenomenal, etc.) are correlative. Meillassoux identifies two well-known arguments that support correlationism, and which I think help explain the notion a bit better. The first argument is what he calls the “correlationist circle,” which argues that it is impossible to grasp some object “in itself” apart from a subject to whom it is correlated. The reasoning goes: the object could only ever be an object if it were thought (in a broad sense) by some subject.⁴³ Thus, to maintain that finite cognition can grasp the “in itself” is a contradiction in terms. Meillassoux calls the second argument the “correlationist two-step.”⁴⁴ This argument is as follows. It is naïve to think of objects and subjects as independently existing entities, so that one must *then* establish a relation between them (the Critical problem of transcendence). If one reflects properly, one will note rather that it is the relation that first appears, a relation that we first call “the world,” and it is only afterwards that subject and object become separated by analytical thought.

To point out just how important correlationism is for contemporary thought, Meillassoux identifies two dominant versions of correlationism in the twentieth century: consciousness, exemplified by phenomenology, and language, typical of certain strands of Anglo-American philosophy. With respect to the former one could look to either Edmund Husserl or Heidegger. Is it not precisely the point of Husserl’s so called “principle of all principles” to establish this correlationism, since it consists in establishing that what is, or what is given in consciousness, only *is* insofar as it *appears*, insofar as it is correlated to an intentional consciousness?⁴⁵ Likewise, is not Heidegger’s early account of pre-comprehension and the meaning (*das Woraufhin*) of *Sein* just such an example of correlation in his early thought? Equally, in his later thought one finds that “the ‘co-proprietation’ which constitutes Ereignis means that neither being

nor man can be posited as subsisting ‘in-themselves,’ and subsequently entering into relation – on the contrary, both terms of the appropriation are originally constituted through their reciprocal relation: ‘The appropriation appropriates man and Being to their essential togetherness.’”⁴⁶ With respect to ordinary language philosophy, one finds the often repeated argument that the limits of language are the limits of what can be known or thought intelligently, so that language and being form the ultimate correlation.

Meillassoux’s next move is to explain how correlation is related to finitude. He argues, rather straightforwardly, that it is just *a particular way* to assert the finitude of thought. If one upholds the notion that what is must be correlated with thought in some way, then it is self-contradictory to claim that there is some absolute, in-itself, that exists without relation to thought (even to state it, am I not thinking of it?). The result is that objectivity must be redefined as universalizable representation.⁴⁷ The finitude of thought is just the positive reformulation of this inability to think of an independent absolute, namely as the paradoxical status whereby one is directly introduced to the things themselves (=transcendence), since there is nothing behind these appearances, but equally trapped by them (=immanence), since we cannot think of anything beyond them.⁴⁸ This paradoxical enabling/disabling redefines truth in its finitude as *a-lētheia*.

Given this context, Meillassoux’s critique of this finitude is surprisingly simple: finite thought cannot account adequately for the meaning of scientific claims, since it cannot account for the literal meaning of these claims, which is the only meaning they have. Take, for example, a “naïve” scientific statement of the following type:

Statement A: “Event x occurred y million years before the emergence of humans.”

A statement of this form qualifies as an ancestral proposition according to Meillassoux, since its reference is to something that existed both prior to humans and which depends not at all on humans for its existence. Given the correlationist's commitment to the inexistence of an absolute independent of human thought, how must he understand this statement? Clearly, it cannot be literally, since in that case he would contradict his position by countenancing the existence of something independent of human thought. What he must do, then, is reformulate the scientist's "naïve" literal statement as follows:

Statement A': "Event x occurred y million years before the emergence of humans *for us*."

Such a redescription, however, is patently absurd, since it denies flatly the meaning of the scientific claim. A scientist does not mean that the fossil only existed *for us*. She means that it existed at such a time, whether or not humans were able to date it, discover it, or existed at all. *The inability of the correlationists to countenance the literal meaning of such scientific claims is the ancestral problem.* And it is a problem for philosophic thought, because unless one wants to remain committed to an account of reality that closely resembles that of Biblical literalists, who believe that the Earth is only 6,000 years old, it is a requirement that philosophers should be able to make sense of scientific claims that exceed the existence of humans.

(b) The Romantic Problem

At its most basic, *The Romantic Problem* may be understood as Badiou's argument that for quite some time philosophers have been mistaken about the character of "rationality," and had they a

better understanding of it, they would have no *motivation* for attempting to circumvent it through recourse to pre-comprehensive understanding, or dialectical thought, or any related approach.

Perhaps the clearest statement of this matter is to be found in Badiou's essay "Philosophy and Mathematics," where he takes both Heidegger and Hegel to task for their complicity with what he calls "the Romantic speculative gesture" (C 159/95). This gesture has two parts. First, it establishes some sphere of cognition (broadly construed) which stands opposed to what is called "reason." Next, the Romantic thinker subordinates what is called "reason" to this alternative sphere. One could think, for example, of Jean-Jacques Rousseau's work, wherein he first separates feeling and reason, and then subordinates the latter to the former. Badiou's point is that this move allows a philosopher to disentangle mathematical thought and philosophy, or more broadly "reason" and the most fundamental aims of philosophical thought.

His critique of Heidegger and Hegel on this score is not difficult to understand. In Heidegger's early thought, Dasein's *verstehen* is fundamentally about the world, and is prior to the apophatic discourse of logic and mathematics. In his later thought, as was shown, the appropriation of man and *Sein* by *Ereignis* is explicitly prior to logical thought. For Hegel, one need only note that the whole point of the *Science of Logic* is to articulate a kind of logic that is broader than, and which embeds the categorical logic with which he was familiar (as well as the mathematical and physical thought of his time).

One might wonder, then, just what is wrong with this gesture? The Badiouian response is that it *presupposes* what is meant by "reason," usually along the lines of something calculative, instrumental, and closed, and that this presupposition is utterly untenable if one reflects more carefully on those practices that supposedly typify this kind of reasoning, such as logic, mathematics, and science. One of the major efforts of both *Being and Event* and *Logic of*

Worlds is to demonstrate just how non-calculative, anti-instrumental, open, and just plain thought-provoking mathematical logic is. Even if one were to make the assumption that set theory and classical Frege-Russell logic were capable of capturing all intelligible relations of the existing world, it would still turn out that the Leibnizian ideals of reason would prove unrealizable. This is Badiou's point about the continuum hypothesis. Even if one assumes the *standard* axioms of Zermelo-Fraenkel set theory, then it still turns out that (given certain restrictions) Easton's theorem shows that the difference between any two subsequent transfinite cardinals is as large as one *chooses*, provided that one's chosen size is larger than the first cardinal.⁴⁹ In short, the Leibnizian dream of total closure, which Kurt Gödel was the last great thinker to pursue, proves to be unrealizable under what was traditionally taken to be the best circumstances.

It is thus by making precisely these ontological assumptions that Badiou is able to demonstrate that contingency is a necessity, that errancy is written "into the heart of what can be said of being" (BE 307/278). Being, what is of the existing universe, *must* have an irrecoverable excess, and this excess is what always allows for intervention, radical change, what might legitimately be called events. Most critically, it means that the *motivation* for the Romantic speculative gesture is evacuated. For if one is able to accomplish all that was desired of feeling, or pre-comprehensive understanding, or dialectical reasoning, etc., by sticking with classical reason alone, why go through all the trouble of articulating such an alternative sphere in the first place? Why try to oppose *Verstehen* to rational discourse, if rational discourse is able to accomplish what was desired of *Verstehen*, and can at the same time avoid caricaturing just in what mathematical rationality consists?⁵⁰

To sum up, *The Romantic Problem* argues, first, that human cognition (even under the best circumstances) is incomplete, so that, second, all the attempts by philosophers to circumvent the reach of “reason” are both obviated and made questionable in their results. Its main aim is to question the *motivation* for a commitment to finitude, but it also questions the adequacy of the characterization of reason one finds in the work of Heidegger (or even Hegel).

(c) *The Ghostly Presence Problem*

If much of Badiou’s work has waged a polemic against Heidegger and his radicalization of Kantian finitude, then it is equally the case that he shares with him the philosophic aim of overcoming ontotheology or the metaphysics of presence.⁵¹ What I term *The Ghostly Presence Problem* is an argument that is supposed to appeal to anyone who is troubled by these same matters. It is, in short, an argument tailor-made to appeal to the dominant approaches of Continental philosophy, and it is an argument that Badiou has been making since his early *Theory of the Subject*.⁵² Stated in as clear a manner as possible, it is the following:

Philosophic thought is committed to thinking the meaning of being without presence. Yet, is also committed the position that understanding (*verstehen*) or reflective thought is finite. It is this latter commitment that prevents the achievement of the former, since any such limit or horizon of understanding is itself a ghostly presence.⁵³

The force of this argument clearly turns on one's ability to show that one's commitment to the finitude of thought, or the meaning of *Sein*, just is a commitment to presence—or better, as the argument's name indicates, a *ghostly* form of presence.

That commitment to the finitude of thought should be understood as commitment to a ghostly form of presence may be understood by reflecting on what Badiou means by “events.” The core of his argument is that one is only freed from presence (in his language: from the one), if errancy is given its full say. Such errancy is just the necessity of contingency that emerges from the demise of the Leibnizian ideal of reason. Yet, to give errancy, to give events, their full sway, one must go further than Heidegger does, who stops at the possibility of *Ereignis*.

I shall try to be pellucidly clear on this point since *so many* readers of Badiou, even diligent ones, have failed to grasp what he means by “events.”⁵⁴ For Badiou an event has three parts: (a) an inexistent, (b) a radical and unpredictable shift of intelligibility, and (c) a process of intervention. I shall elaborate more fully on each point below, but for the present I think the following is sufficient. An “inexistent,” a point of “excess” in the language of *Being and Event*, has the structure of an included exclusion (in Badiou's technical language, it results from the surplus of inclusion over membership). One might think here of the status of the noumenon in Kant. Strictly speaking, one cannot even say that the noumenon exists, since even existence is an apriori category of the understanding. As a result, Kant argues that it has only a “negative” function in his critique, since one cannot think of an appearance without its complementary notion.⁵⁵ One could say, then, that the noumenon as a concept is included in Kant's transcendental philosophy as what is excluded from it.

For Badiou such excess, which he argues is a constitutive feature of being, only marks the *possibility* that an event might emerge.⁵⁶ *The whole point of Badiou's subtractive*

ontology is that an event must be nominated, and then supported by *intervention*, which (again in the language in *Being and Event*) requires fidelity and forcing.⁵⁷ These concepts are precisely the most intricate and culminating notions of Badiou's thought.⁵⁸ When modified appropriately, they make up what he calls "living" in *Logics of Worlds*.

Nowhere in Hegel, Heidegger, or any thinker of finitude's work (including Slavoj Žižek) is such a structure of intervention present.⁵⁹ Using Heideggerian *Ereignis* as an example, I think it is possible to claim that it has both parts (a) a necessarily included exclusion (occasioned by the finitude of thought for Heidegger), and (b) a radical and unpredictable discontinuity in the *Sein* of *Seiendes*. Yet, as John Sallis has shown so clearly, the peril of thought, its most profound point for Heidegger, consists in bringing thought to this verge, to point (b).⁶⁰ Nowhere in Heidegger's thought is a structure like Cohen forcing or a theory of points present, and this just means that his verge, the *Ereignis*, does not really give errancy its full sway. It bottles it up as the final point of reflection, as a final (unpredictable) horizon or unity, and this is why it stands as a *ghostly* form of presence.

4. Infinite Thought

What I am going to do now is take a closer look at the Cantorian Revolution in a more technical way, and to do this I think it will be helpful to begin with a review of the general structure of Badiou's thought.

Despite its overwhelming technical complexity, the fundamental notion that Badiou wants to express is surprisingly simple. In fact he expresses this point himself in one sentence in the preface of *Logics of Worlds*: "*There are only bodies and languages, except that there are*

truths” (LW 12/4). Stated in a slightly less terse way, and in a way that would explain the title *Being and Event*, one could formulate his position in two sentences. If “being” designates all that is, then one must conclude that what is, is fundamentally unstable. If it is unstable, it changes (radically), and this changing of being is what is called an “event.”

I am going to take a moment to unpack these statements, for they express what Badiou means by the turn to infinite thought or the Cantorian Revolution. Starting with the notion that being expresses all that is, or that only bodies (material things) and languages exist, one could think about this thesis in the context of Michel Foucault’s *The Order of Things*, which is originally titled in French *Les Mots et les choses*, or *Words and Things*. Foucault’s concern in this work is the status of representation generally. By this I mean that he is concerned with the way in which words relate to each other, such that they form an order that he calls an *episteme*, which would make sense of our things. For him, and this is the point that scandalized many, the formation of these *epistemes* shifts without reason. In what is normally recognized as the period of early modernity, the figure of man (*l’homme*) emerged as the crucial ordering of the relation of words. Yet Foucault claims that “man is only a recent invention, a figure not yet two centuries old, a new wrinkle in our knowledge, and ... he will disappear again as soon as that knowledge has discovered a new form.”⁶¹ Badiou is less concerned with the “death of man” than he is with what this thesis presumes, namely that it is possible at all to represent the whole of the relation of words as an *episteme*. Is that really possible?

Quite famously, Badiou supposes that set-theory can explain all the relations that are thinkable of being. In short, set theory is ontology. I shall scrutinize the success of this hypothesis in the chapter that follows, but for now, if one assumes that the universe or the totality of things/words is like sets, then one runs up against Russell’s famous paradox. Let there

be the set of things that are not members of themselves (e.g. the set of all tea cups), and let there be the set of things that are members of themselves (e.g. the set of all thinkable things). This distinction appears fairly straightforward, but causes some real problems. Let there be the set of all normal items, that is to say the set of all items that are not members of themselves. Is this set normal? The answer to this question is famously paradoxical. If it is normal, then we have put it in its own set, so it is not normal. If it is non-normal, then by definition it would be a member of itself, which means it is a normal set. Thus, the set is normal if and only if it is non-normal. In any classical logic a statement of this form is truth-functionally equivalent to a contradiction. Thus, if one allows that there are sets that are members of themselves, which follows directly from the existence of a set of all things, then one will encounter an obvious paradox.

Now in order to avoid this paradox, one must conclude that there is no set of all sets, no “whole” as Badiou likes to say. This is just the same thing as claiming that there is no universe, which in its positive formulation might be taken to mean that the universe is incomplete, not totally ordered and stabled. There must be randomness woven into the fabric of being, and Badiou’s argument is that this is just what Cohen’s proof (along with Easton’s theorem) for the independence of the continuum hypothesis shows. The beauty of Badiou’s hypothesis is that one can use reason itself to show that not everything can be explained, and that there must be gaps in being that must be filled in by subjects who are faithful to events. In short, being (bodies and languages) is incomplete; it has gaps, and the gaps in being allow for radical changes called events. What brings these two together, the “and” of *Being and Event*, is the subject.

This summary explains, in general, just what is meant by the turn to infinite thought, since it shows how reason itself leaves open a way for errancy, for excess. One does not need, as Kant thought, to limit reason for anything. The age of finitude has ended because its

fundamental assumptions about reason are wrong in multiple ways. The task that exists for thought now is not to dwell at limits, but to inquire into the status of excess, of the domain generally signaled as the event. The subject that returns, then, cannot be understood as a set of conditions for the possibility of knowledge, but only as that which bores a hole in our encyclopaedia, or what we take to be true by the accepted canons of inference—something like Foucault’s *episteme*.

(a) *The Cantorian Revolution*

In turning to the technicalities of Cantor’s thought, it is helpful to recall that Badiou shares the same metaphysical goal as Heidegger: the overcoming of the metaphysics of presence. He pursues this goal, however, under the Deluzian titles of “immanence” or the “univocity of beings.” The warrant for this change in name is straightforward: Heidegger himself claims that ontotheology takes beings as an original unity. In the second volume of his *Nietzsche*, Heidegger states the following: “[t]he preeminence of beings secures Being as *koinon* (common) from the perspective of the *en* [sic] (One). The distinctive character of metaphysics has been decided. The One as unifying unity becomes normative for the subsequent determination of Being” (ST 34).⁶² To escape the history of metaphysics, then, it is necessary to think the meaning of Being free from such unity, whether conceived metaphysically (so that substances are primary unities), transcendently (so that the I think is the final unity), or Idealistically (so that the Absolute is the final unity). As a result, Badiou’s ontological position begins with the axiom “the one is not” (BE 41/31).

What follows from this decision is the obvious conclusion that whatever is must be multiple and un-unified. It is for this reason that Badiou claims that “what is” is *retroactively* called an “inconsistent multiplicity” (BE 33/25). Nothing, however, can be said or even thought of this inconsistency strictly. Rather, whenever one speaks, one speaks of how this multiplicity has been organized or “counted” as things (BE 53/42). Thus an originary difference between what is (= inconsistent multiplicity), and beings (= consistent multiplicity) is instituted in Badiou’s thought. Since the concept of the inconsistent multiple is subtracted from any constituent reference to unities, Badiou proposes that the only way to capture its being is as nothing—this thesis is set-theoretically secured by the axiom of the null-set. The signifier that designates the proper name of being is thus that of the empty set: \emptyset (BE 81/67).

Thus far, Badiou’s account of immanence is quite close to Heidegger’s. More precisely Badiou is committed to the following three points: (a) the critique of the metaphysics of presence, (b) originary difference, and (c) the univocity (read: non-originary presence) of being. Badiou, however, pursues the additional question whether “the metaphysical enframing of Being by the One can be severed without in turn becoming involved in the Heideggerian idea of destiny” (ST 26/34)? Stated otherwise, how is it possible to pursue the question of the meaning of Being given the *ghostly presence argument*?

To avoid the trap of ghostly presence, Badiou proposes a Cantorian Revolution for thought. The mathematician Georg Cantor’s breakthrough to transfinite numbers, Badiou argues, allows one to think the inconsistent multiplicity without subjecting it to presence or the philosophy of finitude more generally. He can thus enable one to think ontology without presence for the first time.

What was Cantor's revolution? The centerpiece of Cantor's insight concerning transfinite numbers was his recognition of different sizes of infinite numbers, such that it became possible finally to ask, when discussing infinity: how large is that infinity?⁶³ Long before Cantor, in the works of the Pythagoreans and again by Galileo in the modern period, it had been discovered that there is a term by term correspondence between whole numbers and their squares, i.e. between n and n^2 . The intuitive obstacle to this conclusion is that the square numbers form a *part* of the whole numbers. So how could they be equally as many unless the Euclidean maxim that the whole is greater than the part was abandoned? One may say, without too much oversimplification, that it was this intuitive paradox stood as an obstacle to the modern conception of infinity. Cantor's revolution begins by turning this "paradox" into a concept (BE 295/267). To do this, it was necessary to construct a notion of cardinality or size of numbers as distinct from the order of numbers. This construction, however, would require a reformulation of the relation of parts and wholes. After these two constructions, Cantor was able to elaborate a notion of infinity with distinct sizes. The result, and this part was unanticipated, formed a gap in the new sequence of infinities, which he sought to close by verifying the continuum hypothesis. One might claim, then, that the Cantorian Revolution has four points: (a) membership/part distinction, (b) cardinality, (c) infinity, (d) the resulting continuum hypothesis and its aftermath as resolved by P. J. Cohen. Because these points are so pivotal to Badiou's thought, I pause to address each one in a bit more detail.

Cantor's first move in establishing his mature account of the transfinite was to define an "aggregate" (*Menge*) as any collection that is defined only by its members. He then immediately moved to distinguish these members from parts.⁶⁴ In the contemporary set theory that Badiou uses as developed by Zermelo and Frankel, a set is similarly defined strictly in terms of

membership, which is written “ \in .” A set, then, “presents” or “counts” its members—Badiou stipulates that he takes both terms to be equivalent ways of philosophically appropriating the relation of membership. Such membership, however, is distinct from included parts. Given a set $\alpha = \{a, b, c\}$, its members are individually a , b , and c . One could then ask about sets with coincident elements, such as $\gamma = \{b, c\}$. To express this relationship, one says that γ is *included in* or is a *part of* α , and this is written: $\gamma \subseteq \alpha$. It is important to note that inclusion is not at all the same as membership. To use an intuitive example, the United States is a member of the United Nations. Suppose John Smith is a citizen of the United States and so constitutes a member of it. Then it would be the case that $\text{John Smith} \in \text{United States} \in \text{United Nations}$. It would not be true, however, that John Smith would be a member of the United Nations, since he is not a country. Hence it is *a fortiori* not the case that the United States is included in the United Nations, since none of its members are members of the UN. One can now see how the distinction between members and parts is what accomplishes the task of conceptualizing the part/whole relation such that it might not always be the case that the part is smaller than the whole.⁶⁵ The definition of inclusion states that a set γ is included in a set β if all the members of γ are also members of β . Since all of α 's members are members of α , set α is included in itself (making it rather counter-intuitively both the whole and a part of itself).⁶⁶

After this initial distinction, one can follow Cantor by moving immediately to an account of cardinality. Since a set is simply a collection, or what Badiou calls a “multiple,” composed of other collections, it is possible to consider a set in abstraction from both the character of its elements and the order in which those elements are given.⁶⁷ When one considers a set in this doubly abstract way, one is considering its “cardinality” or “power,” which Cantor denoted with a double line above the set name and we shall note by “ $C(\text{set-name})$.” The first part of this

double abstraction is simple enough, since one simply prescind from considering what is collected. To understand what is meant by order, one must distinguish between a *well ordered* set and a *partially ordered* set. Put simply, a set may be considered partially ordered if each element in it has a place relative to other elements. Thus, for every element e_1 and e_2 belonging to a set E , where $e_1 \neq e_2$, it is the case that either $e_1 < e_2$ or $e_2 < e_1$.⁶⁸ Such a notion corresponds to our general understanding of natural, rational, and real numbers. A well ordered set, by contrast, is one that limits the ordering such that each member always has a *direct* successor. This means that no member can appear between the original member and the next. Well ordering, then, is restricted to the ordering found in natural numbers (i.e. the numbers 1, 2, 3, 4 ...).⁶⁹

Two sets γ and κ have the same *cardinal* number if a one-to-one function exists between them. This means, intuitively, if I have a bag that contains the counting numbers (1, 2, 3 ... 18) and one with the even counting numbers (2, 4, 6 ... 36), then every time I reach into my first bag and pull out a number, say '1,' I can reach into the second bag and pull out a number to match it, say '2.' These two bags, then, would have the same power or cardinality. On the other hand, any two sets γ and κ have the same ordinal number if they have both a one-to-one relation and this relation preserves the well ordering of the sets. To return to the bag example, each time I pull out a number in the first bag, say the number 4, I also pull out the corresponding number, which would be 8 in this case, in the second bag.

While the difference between cardinals and ordinals may be relatively easy to grasp, it gains significance only when one considers infinite sets. To discuss this point, however, it proves necessary to collect a few more set theoretic notions. The first of these is the power set. The Power Set Axiom states that if a set α exists, then so does the set of all α 's subsets. If one understands α to include the members specified above, then its power set would be: $\wp(\alpha) =$

$\{\{a\}, \{b\}, \{c\}, \{a, b\}, \{b, c\}, \{a, b, c\}, \emptyset\}$. A surprising element here might be the appearance of \emptyset . The reason for its inclusion, however, is made clear upon reflection. Since \emptyset has no members, all of its members are members of α . So it too must be *included* in the power set of α . One notes further that the new set $\wp(\alpha)$ has eight or 2^3 members. This insight can be formulated into the general rule that given a set a with b members, its power set will have 2^b members. With the power set operation, one is now in a position to construct finite ordinals.

To begin with, one notes that Badiou has only \emptyset in his universe. To generate another element, one can perform the power set operation, $\wp(\emptyset)$, to obtain its singleton $\{\emptyset\}$. Badiou derives a rule from this process that given any set δ , then its singleton $\{\delta\}$ also exists (BE 106/91).⁷⁰ If one establishes that \emptyset corresponds to 0 and its singleton $\{\emptyset\}$ to 1, then one could establish their ordinal successor (the number 2) by the union of these two sets: $\emptyset \cup \{\emptyset\} = \{\emptyset, \{\emptyset\}\}$. As one can see, the union operation simply collects the elements of two or more sets. One can then establish a process of succession that unifies an ordinal and its singleton to construct the sequence of finite ordinals. In other words, the successor of an ordinal γ is $\gamma \cup \{\gamma\}$. For example, the ordinal 3 can be constructed through the union of $\{\emptyset, \{\emptyset\}\}$ with its singleton $\{\{\emptyset, \{\emptyset\}\}\}$ to obtain $\{\emptyset, \{\emptyset\}, \{\emptyset, \{\emptyset\}\}\}$. While this method can be used to generate finite ordinals, it cannot be used to generate an infinite set.

Badiou notes that there are three elements that are necessary for the ontology of infinity. First, there must be an ‘already,’ or a multiple that is already existent such as \emptyset . Next, a rule, such as the one of succession outlined above, is required to pass on to the next multiples. One will also need “the report of the invariant existence—on the basis of the already, and according to the rule, to the rule’s ‘still-more’—of a term still-not-yet-traversed” (BE 165/146). But one has not yet reached an infinite sequence, since any sequence that one has thus far generated will

be finite, even if one knows there is still more to come. Third, then, one will need a second existential seal, or an Axiom of Infinity that guarantees the existence of an infinite set, which will serve as the limit for the productive procedure. The Axiom of Infinity, then, might simply be stated as follows: there exists a limit ordinal, which is written ω_0 . Thus, for any finite ordinal a , both a and the successor of a belong to ω_0 . One may similarly have infinite ordinal successors, such that the *next* infinite ordinal after ω_0 is simply the result of the operation $\omega_0 \cup \{\omega_0\}$ (i.e. the union of ω_0 and its singleton). One can define the concept of infinity, then, as follows: “*an ordinal is infinite if it is ω_0 , or if ω_0 belongs to it.* Similarly, one may say that *an ordinal is finite if it belongs to ω_0* (BE 177/158).

At this point one is prepared to address the cardinality of infinite multiples and what Badiou names the impasse of ontology, namely the continuum hypothesis. For finite sets, the cardinality of a set is equal to its order. This is because finite ordinals are well ordered, and thus admit of no gaps between successors (e.g. there is no gap in the natural numbers between 2 and 3). Thus it is always possible to put the cardinality of a finite number into a one-to-one correspondence with that same ordinal. To illustrate this, suppose the set $\gamma = \langle 1, 2, 3, 4, 5 \rangle$ exists.⁷¹ It exhibits both an ordinal degree of five—this is the last member in the series—and a cardinal power of five, which is to say it has five members. Above it was seen how it was possible to construct a sequence of infinite ordinals. The cardinality of these ordinals, however, is the same for each, since each can be put in a one-to-one relation with the sequence of natural numbers (1, 2, 3 ...). Thus, even when one joins two distinct (disjoint) infinite sets (e.g. the set of all even numbers with the set of all odds), this new set can still be put in a one-to-one relation with the natural numbers. The cardinality of ω_0 is thus said to be denumerable, and is written \aleph_0 (aleph-null). If it were not possible to provide distinct cardinalities for infinite sets, i.e. if it were

not possible to show that some infinite set could *not* be put in a one-to-one correspondence with ω_0 , then all infinities would form an undifferentiated collection.

Cantor, however, did famously devise a way in which to produce infinities larger than \aleph_0 by what is now known as Cantor's theorem.⁷² Since above it was seen that for a given set finite set a with b members $C(\wp(a)) = 2^b$, it is not surprising that it can be demonstrated that $\wp(\aleph_0) = 2^{\aleph_0}$ and that this is greater than \aleph_0 , or more generally that $\wp(\aleph_\alpha) = 2^{\aleph_\alpha}$ and that this is larger than \aleph_α . This difference, namely that the set of parts is always superior in power to the set itself for both finite and infinite sets, is Cantor's theorem.⁷³ Given this theorem, it is possible to directly generate new infinite cardinals by making use of the power set operation. With the cardinality of the natural numbers, \aleph_0 , it is possible to form its power set $\wp(\aleph_0)$, and its power set again $\wp(\wp(\aleph_0))$, and so on. In this way, one forms the cardinalities of infinite sets larger than \aleph_0 as those of the sequence $\aleph_1, \aleph_2, \aleph_3 \dots$

Two consequences follow from the production of the sequence of alephs in this way. First, there cannot be a set of all cardinals. If there were, this set would necessarily belong to itself, and the axioms of set theory forbid such self-membership on pain of encountering Russell's paradox. There is no absolutely infinite infinity. And since this has historically been a metaphysical name for God, Badiou concludes: "God does not exist" (BE 306/277).⁷⁴ Second, this ordering of alephs is only partial. One can grasp that at the finite level the sequence of numbers $2^1, 2^2, 2^3 \dots$ or $2, 4, 8 \dots$ is hardly one without intervening numbers. Since the sequence of alephs is formed in a similar fashion it is not at all clear that there are no intervening numbers between each. Cantor's hypothesis that there was no intervening size between \aleph_0 and \aleph_1 , and since \aleph_1 is the size of the real number continuum, it is called the continuum hypothesis. More accurately and more generally, this hypothesis could be stated as: $\wp(\aleph_\alpha) = \aleph_{\alpha+1}$. Though

Cantor became obsessed with proving this hypothesis during his lifetime, P. J. Cohen showed that the hypothesis could neither be proved nor disproved given the standard axioms of set theory (i.e. Zermelo-Fraenkel set theory with the axiom of choice).

Badiou's philosophical point is that this final impasse of ontology proves to be not only the pass for subjective intervention, but also the final step in "the complete ruin of any being of the one" (BE 301/273). The one, understood in the sense of as being as presence, was avoided first by beginning with a simple sign for being, namely \emptyset . The axiom of the null set (i. e. $(\exists \beta)[\sim(\exists \alpha)(\alpha \in \beta)]$, or that there exists a β with no members) presents only presentation itself and not some determinate being. Second, one finds that there is no highest unity that would unify either all finite or infinite sets, which formerly inspired philosophers to speak of God. Finally, since the ordering of transfinite cardinals itself is ruptured, it is revealed that at the heart of ontology stands a quasi-total errancy of excess. Cantor's Revolution, then, completes the task of thinking being consistently without submitting it to presence.

(b) Set Theory and Ontotheology

From the foregoing it is not difficult to discern why, in *Being and Event*, Badiou undertakes to subtly reformulate the ontotheological critique. Unlike Heidegger who holds that the Christian infinity is a betrayal of Greek finitism, Badiou argues that the "infinite God of medieval Christianity *is*, qua being, essentially finite. This is evidently the reason why there is no unbridgeable abyss between Him and created Nature, since the reasoned observation of the latter furnishes us with proof of His existence" (BE 162/143). From the perspective of the Cantorian Revolution, *both* notions cannot but be vague intuitions. It was noted above that a set γ is

infinite if ω_0 is equal to it *or* a member of it (i.e. $\omega_0 = \gamma$ or $\omega_0 \in \gamma$), and finite if it is a member of ω_0 . In the order of the concept, then, finitude is secondary, since it is defined in terms of infinity (BE 179/159).

A possible objection to the secondary character of finitude might concern the status of ω_0 or \aleph_0 , which are *limit* ordinals and cardinals respectively. Now it is the case that both concepts are *limit* concepts in the properly philosophical sense. With respect to ω_0 , for example, one could legitimately argue it has an ex-sistent structure, since it is included in the succession of finite ordinals as that which is excluded and on the basis of which the entire sequence unfolds. Does this not show that at the level of mathematics, the Heideggerian concerns with finitude and their concomitant limits also have a place of privilege?

The Badiouian response to this challenge is as follows. While it is commonly conceived that what happens at the limit presents the real peril of thought, mathematical ontology warns one to the contrary (BE 490/451). First, this happens to be the case only here. Other limit ordinals have no such special status, but are the product simply of the process by which they are produced. This is why Badiou writes that the successor “is in a position of genuine excess, since it must locally surpass what precedes it” (ibid.).⁷⁵ Second, one finds that the only reason ω_0 has anything resembling a special status is because it is guaranteed by the Axiom of Infinity.⁷⁶ As noted above it is the third part of an event for Badiou, part (c) that concerns the wager and its concomitant process of intervention and forcing, which presents the real peril of thought. This is why in *Logics of Worlds* the example Badiou repeatedly uses for an analysis of an evental procedure is the slave rebellion led by Spartacus. One could say that the slaves hold a limit position relative to the Roman state—i.e. they are included in the state’s functioning as excluded non-citizens, but yet are required for the state to function. This victimization, the mere claim

“we, we are slaves,” however, cannot be a principle for intervention. Only the positive statement, which is contained in the eventual trace “We, slaves, we want to return home” can serve this function (LW 59/51). But commitment to a prescription such as that of Spartacus requires a wager, a decision on the undecidable that begins an infinite process of inquiry, which if successful would force the truth into verification.⁷⁷ To return to the point on ω_0 , it is an axiom of contemporary set theory, and an axiom is just such a wager (in this case successfully forced into the practice of mathematics). In response to the Heideggerian, then, it is its axiomatic status that makes it important, not that it is somehow the correlate or “horizon” of finite thought.

Badiou’s reformulation of the ontotheological critique thus re-characterizes the problem. One finds that if one would like to follow Badiou beyond the metaphysics of presence, it is not strictly possible to think with Heidegger’s analysis, which begins with an account of finitudizing. Here, then, is the point at which the accuracy of Badiou’s critique is raised most forcefully. I have three questions I would like to pursue. To what extent is Badiou’s criticism of Heidegger accurate? Is finitudizing (*Verendlichung*) subject to critique by mathematical innovations? What follows for the future of phenomenological hermeneutics?

5. Finitude and *Verendlichung*

To answer to what extent Badiou’s and Meillassoux’s criticisms are accurate, it will be helpful to recall just what Heidegger means by finitude and how it is implicated in hermeneutics. First, Heidegger’s understanding of finitude is not mathematical, which he criticizes as Christian (ontotheological), but rather the way in which *die Sache selbst* of his thought as finite serves to provide the space within which such thinking occurs. Second, his understanding of finitude is

not univocal. Both in the Marburg period and later in his investigations finitude can be seen to have multiple senses. What has become clear through the above investigation, however, is that these multiple meanings are weighted toward what I have called finitude as *Verendlichkeit* (a term borrowed from Heidegger's own texts). Thus, third and finally, finitude is not a simple limit, but rather constitutes a way of being finite, a finitude-izing. For even with Dasein's crossing over to the other beginning, through man's appropriation into the thinking of the clearing, it is not the case that this would constitute another epoch of Being like all the others. Such an immediate transgression would simply think a renewed form of presence. Instead the turn back (*Rückkehr*) to the first beginning is necessary for the turn in (*Einkehr*) to the experience of the clearing itself. The thinking at the end of metaphysics, then, remains in the crossing not simply by establishing a limit that one transgresses, but by distributing that limit throughout the experience of thought. It is in this sense that thinking at the end of metaphysics is always at the same time thinking at the limit of metaphysics.

How is this sense of finitude implicated in hermeneutics? For Heidegger's thought in both the Marburg period and later, hermeneutics is an "escort" to the finitudizing of *die Sache selbst* of his thought (i.e. of meaning, of *Lichtung*, of *Ereignis*, of language, of *koto ba*, etc.). The sense in which hermeneutics accompanies such a finitudizing, however, differs in each period. With Heidegger's earlier approach, the hermeneutic circle results from Dasein's projective fore-structure. Since Dasein and time can hardly be separated, and since time (better: temporality) finitudizes, such hermeneutics necessarily finitudizes. Indeed, it is difficult to separate the two. Later, Heidegger rejects this projective horizontal structure and retains hermeneutics only as the circulation of Being and man in the finitudizing of the clearing.

In response to the three criticisms of finitude, it is not difficult to fathom some Heideggerian responses. First, one might wonder why it is that Heidegger's thought does not have part (c) of Badiou's account of events described above. True enough, the process of finitudizing, of *Ereignis*, only broaches the way in which there must be an included-exclusion, a nothing to Being, as well as an unpredictable shift in the *Sein* of beings. But why does not Heidegger's structure of anticipatory resolution count as a form intervention?⁷⁸ Second, Markus Gabriel in his essay "The Mythological Being of Reflection," has responded to Meillassoux's *Ancestral Problem* (and Badiou by implication) as follows:

Neither idealism nor phenomenology is an ontic theory according to which the existence of human beings is the efficient cause of the existence of particular objects such as the sun, the Milky Way, or Niagra Falls. That there are epistemological conditions of possibility of experience or even ontological conditions of possibility of determinacy *überhaupt* is a second-order claim of reflection. ... Meillassoux' critique of correlationism simply misses the distinction between ontic (first-order) and ontological (reflective) theorizing.⁷⁹

With this response one sees the fundamental way in which Badiou's and Meillassoux's criticisms fail. Taken without modification, they at best oppose their penchant for mathematics to Heidegger's love of poetry. Taken without modification, I think one is left with mere rivalry, a kind of groundless choice.

My own response follows two stages. First, in response to Gabriel, it is necessary to recall an argument Ricoeur made back in the 1960s in his assessment of Heidegger's thought.⁸⁰

Rather than merely repeat Ricoeur, I would like here to expand his points somewhat, and slow it down a bit—go through it in low gear as it were. Additionally, I shall provide it with a name: *The Regression Problem*. It has two parts.

Part A: That Regressive Arguments have a Definite Structure

Whenever one argues that a level of discourse, or being, or anything at all is *prior* to another by way of regression, one's argument must have two parts. One must argue from some domain x back to a prior domain y, but one must *also* show how y explains the posterior level x. Without this latter move, one could argue regressively to *any* conceivable prior level. For example, one could argue that occult forcers are “prior” to the epistemic claims of modern natural science, and that anyone who did not agree simply missed the distinction between first-order (ontic) and second-order (ontological) theorizing.

Part B: That the Requirements Cannot Be Met

Yet no one can establish the required priority to the “positive” sciences, because the “positive” sciences *are not static*. This matter may also be resolved into two related points.

First, in order to argue that the meaning or epistemic condition of the sciences is derived from some prior kind of understanding, one would at least have to undertake a thorough examination scientific claims just to make sure that

on the return route, one did in fact explain scientific reasoning. The point here is that Heidegger did not undertake this required examination, and though Hegel did, matters have at least progressed significantly so that one would be required to do so again—otherwise the warrant for his claims would remain obsolete (as it currently does).⁸¹ There is thus little *motivation* for trying to establish such an argument, as it would require more work than simply undertaking a hermeneutics of science (and math and logic) directly.

Second, one will only ever be able to articulate such priority with respect to a synchronic slice of scientific thought. Because it is rather widely recognized that scientific thought (at least) undergoes radical (evental) shifts, one will never be in a position to determine in advance the meaning or epistemic warrant for *all possible* claims scientists make. One thus cannot claim to have argued regressively to what is prior to all scientific *inquiry*, but only in the best case (which again remains unfulfilled by Heidegger and Hegel) to some domain prior to a specific set of scientific claims. The route to prioritization, which would dig under the discourse of the “positive” sciences once and for all, is thus blocked. It must instead be acknowledged that the very *aim* of these regressive arguments is incoherent—a remnant from the Enlightenment, or at least some form of positivism, when it was still assumed that scientific knowledge was accretional and unrevisable.

The implication of this argument for those defenders of finitude is that they must actually try and address the critiques of Badiou and Meillassoux. As one will note, Gabriel is content to admit

that phenomenology (especially his Hegelian phenomenology) as well as Heideggerian thought remains committed to correlationism just as Meillassoux describes. What the above shows, then, is that his position *is in fact* saddled with just the problems both Badiou and Meillassoux describe.

The capital task in responding to the above three criticisms, then, would be to show how Heidegger (or Hegel) *could* have developed a positive account of intervention, part (c) of Badiou's account of events. Here the suggestion that Heidegger does have this aspect to his thought through his account of anticipatory resoluteness would hold more weight. Yet it is helpful to bear a number of points in mind with respect to this "solution." To begin, I doubt that this notion functions in the necessary way. For Badiou, intervention is for the specific purpose of bringing about the new. Regardless of how one interprets anticipatory resolution, it remains the case that it is subservient to Heidegger's aim, which is to dwell at the limit of *Sein*, in the space of the clearing. Furthermore, one must recall that subjectivity is *not* a problem for Badiou, as it is for Heidegger, so that it would seem rather difficult to claim that Heidegger would at all favor an account of intervention which requires a constitutive role for subjectivity. Finally, one must also recall that Heidegger *does* think that reason is calculative and manipulative, which is why he finds its apogee in "cybernetics" in the 1960s. But if Badiou is right about the way reason works (*The Romantic Problem*), then the only problem with reason is that it has been stopped in its creativity. Technology, or a technological mode of viewing being, is not the source of contemporary nihilism for Badiou. Rather, at least a major source of difficulty is a fascination with finitude itself, with dwelling at the most profound source of thought. For when one is beholden to this notion, one ceases to want to change what is, to create radical breaks, to engage in revolutionary science or politics, to mold new art, to fall in love. These

considerations, I think, show why it is that Heidegger simply does not have the resources to respond to Badiou's critique of finitude.

6. After Finitude

The general consequences of Badiou's Cantorian Revolution affect nothing short of the destiny of thought itself. That hardly anyone in contemporary Continental philosophy escapes Badiou's and Meillassoux' critical analysis will be noted by the predominance of the motifs of finitude, limits, transgression, thresholds, liminal analyses, and phenomena on the verge. All these analyses take such situations to present the real peril of thought rather than wagers and fidelity, which locally surpass (exceed) by diagonalizing the situation. The "turn" to religion, for example, is motivated precisely by this need to find what is most transgressive. It is for this reason that Badiou writes that it is "the concensual motif of finitude" that continues to hold open the possibility of God's "come-back" (ST 20/29).⁸² Only with Cantor, then, is one finished with the death of Gods, namely those of the God of personal relation, the God of metaphysics, and the God of the poets. In a similar vein, since transcendence occurs by revolution, i.e. by wagering and remaining faithful, "there is no Method" (BE 177/158). The Cantorian Revolution goes beyond the metaphysics of presence, then, by recognizing the need "to finish up with the motif of finitude and its hermeneutical escort" (ST 21/30). Finally, since each hermeneut's concern with finitude can adequately be traced back to his engagement with Kant, and since Kant himself sought to establish the limits of reason through the Copernican Revolution, it is not difficult to see that the Cantorian Revolution is not intended as a supplement to the Copernican, but as its replacement.

While the focus of this chapter has largely been negative, it must be recalled that at its heart Badiou has in mind a positive proposal. Finitude has three undesirable results: (a) it preserves the metaphysics of presence in ghostly or hyperbolic form, (b) it prevents positive proposals in favor of repetitive nostalgia, and (c) it condemns thought to a simple operation modeled on intuition. Badiou's Cantorian Revolution thus has three symmetrically opposed advantages. First, it resolutely avoids the metaphysics of presence both through a novel development of ontology, and by an ingenious account of events. Second, Badiou's motivation is to avoid the post-modern nostalgia that has paralyzed possibilities for political, artistic, amorous, and scientific intervention. Third, he has ushered in a complex structure of knowing or transcendence (wagering with its concomitant forcing or procedure of fidelity). Furthermore, Badiou has *not* dispensed with re-reading Kant, Hegel, and Heidegger, and neither are limit analyses eliminated. It is rather that the way one engages these thinkers and that the priority of these analyses is altered. One must recall that Heidegger is mentioned approvingly in the first sentence of *Being and Event*, and as the title of the work suggests, a central task that Badiou seeks to accomplish is the rearticulation of central Heideggerian notions such as beings, presence, unity, and *phusis* after Cantor. Some thinkers re-emerge as possible sites for new thought, such as Plato, Lucretius, and Spinoza (all formerly considered unrepentant ontotheologians). Poetry no longer must be the melancholic guardian of finitude, but instead is free "to be devoted to the enchantment of what the world is capable of" (ST 21/29). This is the case, however, not only for poetry but all the arts. Similarly, liminal analyses, such as Agamben's deployment of *homo sacer*, can be retained, provided that one recognizes that this kind of analysis is not enough to effect political change. Only political prescriptions, which may be a response to a crisis identified by some liminal analysis, can prompt such change.⁸³ Finally,

philosophy itself is free to think the compossibilities of all truth procedures, including the sciences and their technological advances. It is this thinking of compossibilities that remains for thought at the end of finitude. And it is only by taking it up as a task that one will have begun to think in the twenty-first century and moved beyond metaphysics.

What is the status of hermeneutics then? Is it a method and tradition that should be considered as of merely historical importance now? It is important to note that Badiou's critique does not establish that all forms of hermeneutics are impossible, but only those that are committed to finitude. Can there be an infinite hermeneutics? I believe so, and if the current chapter has largely avoided Gadamer and Ricoeur's thought, it is because I believe that, especially in the latter's case, these thinkers present one with resources from which one can draw in order to make a response. This is not to say, of course, that Heidegger is of no use. Only that I do not think that his work can be helpful in this way, and in response to this particular critique. Yet, before developing an account of infinite hermeneutics, I want first to look at Badiou's own work. The reason for this is the following: if all one gains through the articulation of an infinite hermeneutics is the title "hermeneutics," then there seems little reason to undertake such an endeavor and I may as well simply declare myself a Badiouian. Unless more than a simple defense is provided, one that claims *more* than that hermeneutics need not be finite, nothing more will be accomplished than a kind of academic gymnastics. Infinite hermeneutics must do something more, something positive, to merit its resuscitation. And one will find grounds for this "more" is only by undertaking an immanent critique of Badiou's work.

2

**Infinity and Emergence:
The Case Against (Mere) Events**

In his critique of Nietzsche a certain word came to determine Heidegger's aim in thinking, an aim, expressed negatively at least, for philosophy after the metaphysics of presence, after what Heidegger and Nietzsche alike called "Platonism," after what they called, and without qualification, "the history of philosophy." The term occurs close to the end of Heidegger's 1936-37 lecture course entitled "The Will to Power as Art." He is commenting on Nietzsche's "How the 'True World' Finally Became a Fable," which is itself a story in *The Twilight of the Idols* that tells how truth drifted away so thoroughly that it became a mere fable.¹ What Heidegger is interested in is Nietzsche's challenge that philosophical thought must be engaged in an "*Umdrehung des Platonismus*," an overturning (or overcoming) of Platonism.² Heidegger is interested in demonstrating how one can find in this statement a criterion for thought, for philosophy, after the metaphysics of presence. Not only does this overturning require an inversion of the true and the apparent, but it also requires a transformation of the structuring opposition that governs Plato's thought. Heidegger's conclusion, in David Krell's memorable translation, is the following: "To that extent, overturning [*Umdrehung*] Platonism must become a twisting free [*Herausdrehung*] of it."³ It was this term, *Herausdrehung*, which served both as a negative aim for any thought that would move beyond the metaphysics of presence, and as a criterion for future philosophical success. Indeed, it was by appeal to this criterion that Heidegger was able to criticize Nietzsche himself.

After the conclusions of the last chapter, however, one might also claim that it is by appeal to this same criterion that Badiou criticized Heidegger, or more specifically Heidegger's commitment to finitude. The heart of all three Badiouian criticisms, *The Ancestral Problem*, *The Romantic Problem*, and *The Ghostly Presence Problem*, concerns the way in which finitude has stymied thought, has prevented philosophical discussion from advancing to the new, to events, in all domains of being (including especially those of mathematics and science). And without this radical novelty, without these breaks in the presence of being, one cannot claim to have changed the structuring opposition of the true and the apparent; one cannot claim to have twisted free from ontotheology and the nihilism it engenders. Despite other differences, appeal to this principle, as both a negative aim and positive criterion of success, thus serves to establish any warrant one might have for waging an immanent critique of Nietzsche, or Heidegger—or even Badiou.

I have so far argued in Badiou's favor, reconstructing and supplementing his arguments in order to make the case that commitment to the finitude of thought is problematic. In the present chapter, I now hope to establish just why I do not think it is sufficient to remain content with Badiou's proposals, why it is that I think a return to hermeneutics, albeit an infinite hermeneutics, holds more promise. To this end, I shall review Badiou's own thought in some detail. Since both of Badiou's major works are marked by a division between a normal order of being (*l'être*) or appearance and an account of the event, I shall proceed by addressing the ordered part of being and appearance first, and then turn to the formalization of the event. What this review will establish is the conceptual backdrop for the four arguments that I think illustrate the four capital problems facing Badiou's work: (1) *The Appearance Problem*, (2) *The Suturing Problem*, (3) *The Hard Core Problem*, and finally (4) *The Emergence Problem*. The last of these

makes the case against mere events, the kind that one finds in Badiou's thought. Taken together, these current problems, with the four established last chapter, thus set the task for a new kind of hermeneutics.

I Being and Appearance

In turning to Badiou's own project, my purpose here is not to provide a commentary or summary review. This has already been done elsewhere.⁴ Instead, I have a Socratic task in mind. In the *Phaedrus*, Socrates pauses at a certain point in his examination of erotic madness, just before he broaches the topic of dialectic, and tells Phaedrus that in order to get to the bottom of the matter they are investigating he aims to "carve along the joints" of being, not like a clumsy butcher, but with precision.⁵ In a like manner, I here aim to cut at the philosophic joints of Badiou's work with philosophical precision, in order to illuminate the unstated suppositions that sustain it. This means that what follows must of necessity be technical. In all the literature on Badiou's work, there is none that yet has aimed to tease out the technical consistency of his thought in both *Being and Event* and *Logics of Worlds*, and this is the case despite the fact that Badiou states quite openly that one can only ever gain a kind of guided tour of his real thought if one does not avert to the mathematics that sustains it. My wager here is that through such an examination it will become evident just how and why Badiou does not argue for a more robust account of events, why he argues for what one might call "mere" events.

1. On What There Is

What I shall examine here is the way in which being, for Badiou, exhibits a quasi-stability, a kind of in-stability. For it is only by this in-stability, what one might call a discontinuous ontology, that events become possible for Badiou. The heart of the matter in Badiou's earlier *Being and Event* concerns the transition to set theory proper, in particular the set theoretical hierarchy V, from what is now often called naïve set theory.

This shift was occasioned by Russell's paradox and other similar ones (Cantor himself discovered a paradox in this family some years earlier). The source of the paradox, identified by Russell himself, was that set theory operated by use of something like Gottlob Frege's *unlimited abstraction principle*, which had the advantage of allowing mathematicians to obtain almost all the sets necessary for mathematics from it alone. It was as follows: given a well-defined property P, there exists a unique set A that consists of only those things that have the property P. Usually, such a set is expressed with braces as follows: $\{x \mid P(x)\}$, which means 'the set of all x having the property x'. The problem with this principle is that it allowed one to form sets that were members of themselves, which is the basic condition required for Russell's paradox.

Russell himself tried to solve the problem by means of a theory of types, but with rather negligible success.⁶ The solution that eventually carried the day was Ernst Zermelo's, which resolved the problem by stipulating away the existence of self-membership. Zermelo's reformulation is to produce a *limited principle of abstraction* by requiring that one *already* have a set from which a property could specify a new set. Badiou expresses this principle, now known as the axiom of separation, as follows: "If α is given, the set of elements of α which possesses an explicit property (of the type $\lambda(\beta)$) also exists" (BE 538/501). The change can be noted symbolically as follows: $\{x \mid x \in A \text{ and } P(x)\}$, which means "the set of all x that are both members of A and have property P."

The set-theoretical results are two-fold. First, since one must specify a new set only from a previous set, one now conceives of sets in a hierarchy, called V , which is punctuated by two axioms of existence: the null set axiom, and the axiom of infinity. This solution is often called the “set-builder” approach. The general point is that one establishes (1) a lowest level of the hierarchy V_0 , (2) a rule for the production of successive levels, and (3) a definition of limit ordinals. The lowest level of the hierarchy is the null set \emptyset . The simplest way to think of the rule for succession would be to think of the levels as expressed by the power set axiom, such that $V_{\alpha+1} = \wp(V_\alpha)$. Thus $V_0 = \emptyset$, $V_1 = \wp(\emptyset) = \{\emptyset\}$, $V_2 = \wp \wp(\emptyset) = \{\emptyset, \{\emptyset\}\}$, $V_3 = \wp \wp \wp(\emptyset) = \{\emptyset, \{\emptyset\}, \{\{\emptyset\}\}, \{\emptyset, \{\emptyset\}\}\}$, and so on. Finally, to establish a limit ordinal, one thinks of it as the arbitrary union of all its members: $V_\alpha = \bigcup_{\beta < \alpha} V_\beta$, if α is a limit ordinal. In this way one may think of V as the “collection” of all sets, such that $V = \bigcup_{\alpha} V_\alpha$.

This brings one to the second point: there is no set of all sets, which is “in effect the mathematical concept of the Whole” (LW 165/153). If there were, one would encounter Russell’s paradox. Thus, there is no Whole, and by the axiom of separation one cannot produce it.⁷ Yet, in stating this point, I may seem to have contradicted myself, since I have already referred to V . Is that not a set of all sets? In response one has two choices: either one can develop a set-class theory proper, usually called NBG because it was developed by von Neumann, Bernays, and Gödel, or one can just stick with sets. The latter way, which Badiou follows, was pioneered by Zermelo and Frankel, hence the reason this form of set theory is called ZF or ZFC (which includes the axiom of choice). On this course one considers V as a “class,” but not in the sense of a new kind of collection. Rather, it is just to be understood as an

abbreviation for an uncompleted set (which V is). Though one may refer to it *like a set*, this is only for convenience.⁸

Now the foregoing hierarchy presupposes that one has a well-defined account of numerical succession, but natural numbers themselves must be given a set-theoretical exposition. This exposition, Badiou claims, shows both what “nature” means after Cantor, and the ontological stability of the universe.

What is strange about this move is that Badiou identifies natural numbers with nature or “*physis*.” Heidegger, he notes, aims to save *physis* from its Platonic legacy, by which it was submitted to mathematical thought. Yet it is Heidegger who identifies *physis* with “constancy, the stability of what has opened forth of itself” (BE 145/127). The Greek *phyō*, Latin *fui*, French *fus*, and German *bin* and *bist* are all derived from the Sanscrit *buh* or *bheu*, which Heidegger argues ultimately share a core meaning, “to come to stand.” For this reason, he argues in his *Introduction to Metaphysics*, being is thought primordially as *physis*.⁹ Badiou agrees with this assessment, he only notes that what was novel to the Greeks was not the poem, but theoretical mathematics (BE 144/126). If one wants to save philosophy from its temptation to nostalgia, if one wants to affirm the Cantorian Revolution, then one must affirm what breaks with presence. Since *physis* is the name of this constancy and presence, Badiou urges that the best way to understand it is to identify it with natural numbers.

The way Badiou chooses to explain natural numbers is to follow von Neumann, rather than Zermelo, which has the advantage of identifying any natural number with the set of all smaller natural numbers. This rule, which I outlined briefly last chapter, makes use of the singleton of a set (e.g. $\{\emptyset\}$ for \emptyset), and then establishes the successor ordinal by the union operation (e.g. $\emptyset \cup \{\emptyset\} = \{\emptyset, \{\emptyset\}\}$). Thus one obtains the following:

$$0 = \emptyset,$$

$$1 = \{\emptyset\} = \{\emptyset\},$$

$$2 = \{0, 1\} = \{\emptyset, \{\emptyset\}\},$$

$$3 = \{0, 1, 2\} = \{\emptyset, \{\emptyset\}, \{\emptyset, \{\emptyset\}\}\}, \text{ etc.}$$

The ordinal sets established in this way are necessarily transitive, since a transitive set is a set α such that for every member of α that member is also a subset of it (i.e. $B \in \alpha \supset B \subseteq \alpha$). All sets formed by the successor operation above, then, have this property. Since ordinals are transitive, one can be certain that there is a “*maximum correlation between belonging and inclusion*” (BE 150/131). Such correlation establishes the first characteristic of the stability of nature, for its other I must broach what Badiou refers to as its “atomism.”

The atomism of nature follows from the following points. For any arbitrary member of an ordinal α , say B , one knows that B is included in α (by definition of ordinal sets). Yet, $B \subseteq \alpha$ means that all members of B are members of α . Thus, any arbitrary member of B , say c , is a member of α also. Belonging therefore transmits itself along this ordinal scale. One may thus define the property “smaller than” as follow: for an ordinal α such that for any $B \in \alpha$, B is the “smaller” ordinal. The result is that for any ordinal α , with a specifiable property $\phi(x)$, it is possible to find the smallest member with that property, which one may call the \in -minimal element. This notion makes for a rather vague atomism, which can be made more rigorous with the following two points. First, all ordinals are universally connected. The proof for this point, in short, is a *reductio*, which I shall not reproduce here.¹⁰ The second is the uniqueness of each

\in -minimal element. Since all ordinals are connected, any \in -minimal element specified by a property $\varphi(x)$ is thus unique. Ordinals, then, form a natural atomism, and so ensure that “[t]here are no holes in nature,” which is to say it is absolutely stable (BE 155/136).

The catch with this atomism is that it only obtains at the finite level. For while it is possible to produce a partially ordered succession of transfinite cardinals, the rule for the succession of cardinals cannot produce the well ordering of natural numbers, granted the independence of the continuum hypothesis. A breach thus opens in the order of being, in which it may be possible for the event to intervene. This breach is what characterizes the *instability* of ontology, of being, for Badiou and establishes the possibility of eventual change.

2. On Appearance

Badiou never rescinds his argument that all being, that every intelligible aspect of what is, can be expressed in (or better: is only adequately expressed in) the univocal language of set theory. Yet, in working out the implications of this position he noticed a certain deficiency: set theory is a poor language to explain all possible relations. By this admission Badiou does not mean that he must look to some other kind of thought (e.g. *verstehen* or feeling) to account for all of reality. Rather, his point was that on immanent and strictly mathematical grounds, one can demonstrate that set theory exhibits a certain poverty in describing relations, at least with respect to its rival abstract algebra: category theory. For this reason, Badiou argued that in addition to being one must also explain appearance or existence (they distinct but related concepts for Badiou). *Logics of Worlds*, which is explicitly subtitled as the sequel to *Being and Event*, is thus meant to explain the order of appearance just like *Being and Event* explained the order of being. And in order to

address the rival abstract algebra, this time the branch of mathematics he used was category theory. The resultant doubling, being and appearance, or set theory and category theory, or what Badiou calls onto-logy (with the hyphen), is thus his solution for this descriptive poverty.

(a) On Categories

I begin with a more technical explanation of the motivation behind Badiou's development.

The obvious difficulty in adopting set theory as a description of ontology is that the whole set-theoretical apparatus is reducible to one relation, namely membership. The elements included in a situation, because of Badiou's set-theoretic approach, cannot have any relations to each other.¹¹ As a result, the situation (a model) is dramatically simplified without any place for universal structuring principles. In order to produce almost any useful relations, set-theoreticians turn almost immediately a formulation of ordered tuples, and usually adopt Kazimierz Kuratowski's 1921 formulation, which defines an ordered pair $\langle x, y \rangle$ as $\{\{x\}, \{x, y\}\}$.¹² Relations are then defined as sets of ordered pairs, and the notion is extended to ordered n-tuples. Only at this point is it possible, set-theoretically, to define functions, which are the life blood of mathematics. At a purely mathematical level, Badiou acknowledges, after Jean-Toussaint Desanti's critique, that set theory has certain limitations.¹³ For example, it cannot capture the deepest essence of groups, which is what legitimates their omnipresence in fields as diverse as psychology and physics. "Let us assert," Badiou writes, "that a great concept in algebra [viz. groups] ... is more encumbered than illuminated by mentioning the underlying set that is presupposed in its definition Actually, the specifically categorical definition of a group is the

only one able to reveal its essence” (ST 167/145). In order to remedy the poverty of relational descriptions in set theory, Badiou turns, then to category theory.

This move makes sense at a mathematical level, since one way to think of category theory is as the abstract algebra of functions (or at least relations) *directly*. To understand in what way this is the case, I will demonstrate the process of abstraction with respect to functions defined set-theoretically. To do this I begin with two aspects of functions.

First, consider the case of functional composition. Suppose one has two functions $f: A \rightarrow B$ and $g: B \rightarrow C$, with the target of the former being the source of the latter. One can compose these functions with the rule “apply f and then g .” Thus for $x \in A$, the output $f(x)$ is an element of B , and so an input to g . Then by applying g one gets $g(f(x))$ of C . Here the passage from x to $g(f(x))$ establishes a new function with domain A and codomain C , which is called the composition of f and g , denoted as $g \circ f$. Now there are numerous interesting properties about functions and their compositions, but one of the most pertinent is that they are associative. Given three functions $f: A \rightarrow B$, $g: B \rightarrow C$, and $h: C \rightarrow D$, the domains and codomains of which are appropriately matched, their composition can be expressed in two ways. One could “do f then $h \circ g$ ” (i.e. $(h \circ g) \circ f$), or “do $g \circ f$ and then h ” (i.e. $h \circ (g \circ f)$). It turns out that both ways are equivalent:

$$[h \circ (g \circ f)](x) = h(g \circ f(x)) = h(g(f(x))),$$

and equally

$$[(h \circ g) \circ f](x) = h \circ g(f(x)) = h(g(f(x))).$$

The two functions, then, have the same domain and codomain, and they assign each element of the domain to the same element of the codomain. They are thus equivalent functions, so that functional composition is associative.

The second point concerns identity functions. An identity function is just an ordinary function that maps every element to itself so that $i_A: A \rightarrow A$, for all $a \in A$ $i_A(a) = a$. So given a function $f: A \rightarrow B$, then $f \circ i_A = f$ and equally $i_B \circ f = f$. We may thus state the identity law for functional composition as follows: for any $f: A \rightarrow B$, $g: B \rightarrow C$, $i_B \circ f = f$ and $g \circ i_B = g$.¹⁴

Following the procedure of mathematicians, what I now “abstract away” what is common to functions described set theoretically and the result will be an account of categories. Basically, given (1) a “world” (this is the sense of “world” in *Logics of Worlds*), (2) objects, and (3) arrows one *can* have a category. Consider the following examples. For the world of sets, the objects are all sets or V , and the arrows are all functions between sets. One could also be more specific with this world within V . So for example, given the world of finite sets, the objects would be all finite sets, and the arrows would be all the functions between finite sets. For a slightly more advanced example, given the world of partially ordered sets, the objects in this case would be all partially ordered sets, and the arrows would be what mathematicians call monotone functions. For an example without a set theoretical world, one could take the world of groups, in which all groups would be the objects, and group homomorphisms would be the arrows.

The way that one knows that each of these cases is in fact a category is not only because they all have a world, objects, and arrows, but also because the arrows in those cases compose and conform with the identity law for functional composition. Stated axiomatically, then, a category is defined as follows: \mathcal{C} is a category if there is

- (1) a collection of items called \mathcal{C} -objects;
- (2) a collection of items called \mathcal{C} -arrows;
- (3) operations assigning to each \mathcal{C} -arrow f a \mathcal{C} -object that is its domain (or $\text{dom } f$) and another that is its codomain ($\text{cod } f$).
- (4) an operation called composition assigning to each pair of \mathcal{C} -arrows (g, f) with $\text{dom } g = \text{cod } f$, a \mathcal{C} -arrow $g \circ f$, in which the associative law obtains.
- (5) an assignment to each \mathcal{C} -object b of a \mathcal{C} -arrow $i_b: b \rightarrow b$, the identity arrow on b , such that the identity law holds.¹⁵

At this point I must now broach what is perhaps the oddest part of category theory, though it accounts for the strange pluralization of the title *Logics of Worlds*, namely that category theory has no representation theorem. After performing an abstraction, such as I have informally indicated above in abstracting the account of functions from set theory to category theory, mathematicians try to “measure” the extent to which the original models for the abstraction capture all other possible models. A representation theorem is one that states that any model of the axioms of a certain abstract algebra (such as category theory) must be equivalent to a particular model or list of models. A strong abstraction, then, is one that has very few models, because it is thought that more is put into the concept. On one extreme, then, one has the strongest case, with only one model. Here the classic case is a complete ordered field. At the other extreme, one has the very weak abstraction, in which there is no model for the axioms to which other models must be equivalent. This is the case of category theory, which lacks any such representation theorem. Thus there are all kinds of worlds in which the objects are not sets,

the arrows are nothing like functions, and ‘ \perp ’ has nothing to do with (set theoretical) functional composition.

Two concluding remarks are in order here. First, and crucially for Badiou, an object defined according to category theory is not some basic atom. If it were, then, it would constitute a kind of presence at the heart of existence, and so would return precisely to the onto-theological metaphysics he is trying to avoid. Sets avoided this charge because \emptyset is not originally something, transfinite cardinals in V are not well ordered, and V itself is no such totality. If one were to take V as an account of sets, then, set theory avoids the need for an original unity. Here in category theory, an object A is given an arrow $i_A: A \rightarrow A$ that is called the identity of arrow of A so that, in short, objects are arrows too. That category theory lacks a representation theorem forms the second portion of his account that ensures that existence, just like being, does not succumb to an original presence. Second, given the above account of arrows, one may understand functions, especially as described by set theory, as *more specific relations* of arrows. This means that category theory exhibits, at least provisionally, the versatility in the description of relations that set theory lacks.¹⁶ To see how Badiou makes use of this additional descriptive power, one must turn to “the greater logic” of *Logics of Worlds*, which plays an analogous role to V in *Being and Event* (LW 101/97).¹⁷

(b) *The Transcendental Index*

In articulating his account of appearance, Badiou’s basic task requires that he accomplish more than the simple subordination of category theory to set theory. While this move is necessary for Badiou’s project, it does not in itself solve his basic problem. In order to specify his account of

situations or worlds, he must show how category theory elaborates an account of situational or worldly difference that set-theory cannot. He thus returns to the set-theoretical hierarchy V of ZFC and notes first, that the axiom (schema) of separation is necessary to avoid Russell's paradox. The consequence of this axiom is that there can be no whole. Second, he turns to the axiom of extensionality, which states that two sets are equal if and only if they have the same members. The consequence of this axiom requires that if two sets are different at one point, they are different everywhere. Difference, understood set-theoretically, thus functions *both* locally and globally within V , so that there can be no local definition of difference in set theory. Thus he turns, third, to the category theoretical account of a complete Heyting algebra to remedy the abstractness of set-theoretical difference (ST 170/146). It is as a consequence of this final move that he is able to provide a more robust account of object relations. Since this third point is the capital one, I begin by reviewing it in a little more detail.

Badiou does not take the time in *Logics of Worlds* to build from the basic operations of category theory to a complete Heyting algebra of Ω -sets. Instead, he develops this algebra directly as the algebra of a world's transcendental index for appearance. He bypasses building from the basic account of arrows and composition described above for two reasons. First, the development is quite complicated and philosophically not relevant to the argument (LW 563/537).¹⁸ Second, the purpose of addressing category theory to begin with was to establish richer relations among appearing-beings, or identities. Yet, while an identity arrow is required for functions, this identity is not philosophically interesting, since it expresses a static identity, which is necessary only to get categorical analysis going (ST 172-3/148). The interesting sense of identity is expressed by isomorphic relations, which have a reversible arrow between objects. Such an isomorphic identity enables one to establish that two objects α and β are the same. It is

the role of what Badiou calls “the function of appearance,” symbolically expressed as $\mathbf{Id}(\alpha, \beta)$, to measure the identity between α and β *according to degree*. Of course, any measuring requires a “measuring stick” by which items can be measured. What serves this role is the transcendental index in a given world (which Badiou symbolizes as “T”), which exhibits a partial ordering among its members, much like the V set-theoretical hierarchy (LW 171/159). It is thus the operations on the transcendental function T in a given world, namely the minimum (or zero), conjunction, and envelope, that allow Badiou to elaborate the situational complexity of relations among beings that were formerly interdicted under the set-theoretical account. Since these three operations are as crucial to *Logics of Worlds* as membership and inclusion are to *Being and Event*, I shall address each briefly.

Minimality, noted by μ , operates in *Logics of Worlds* in a way similar to the void in *Being and Event*. I recall that a partial order is such that for any two elements a and b it is the case that either $a \leq b$, or $b \leq a$, or $a = b$. Furthermore, for the theory of Ω -sets that Badiou uses, these relations are reflexive (such that $x \leq x$), transitive (such that $[(x \leq y) \ \& \ (y \leq z)] \rightarrow (x \leq z)$) and antisymmetric (such that $[(x \leq y) \ \& \ (y \leq x)] \rightarrow (x = y)$). Given this backdrop, the notion of minimality is quite simple. It states that in a world \mathbf{m} , with a partially ordered transcendental index T, for every degree of intensity p of T it is the case that $\mu \leq p$ (LW 172/159). Like \emptyset in the set theoretical hierarchy V, then, μ occupies the place of lowest value. One crucial difference between a minimal relation and \emptyset , however, is that \emptyset is an intrinsic relation (i.e. it is defined only by its members), while μ is not, since it is defined extrinsically with respect to a transcendental index. It is, however, like \emptyset insofar as it is unique. For if there were two minimal relations in a world μ and μ' , then $\mu \leq \mu'$ and $\mu' \leq \mu$ (by definition of minimality), so that $\mu = \mu'$ by the property of antisymmetry.

I note in passing that μ allows one to define a notion that has no analogue in set theory, namely the maximum M . While there cannot be a set of all sets, and hence no highest value of V , there can be a highest value of a world, since worlds are not unified by some final world in category theory. Without here defining the inverse operation \neg , since one can think of it as negation for the present purposes, M is defined as $\neg\mu$.¹⁹ The idea captured here is that of the maximal intensity of appearance of a being (i.e. a set) in a world.

An example may help to clarify these operations a bit. Consider Hans Holbein's famous painting *The Ambassadors*. Commissioned by Jean de Dinteville, who was an ambassador sent to England by King Francis I of France, it is generally supposed that he is the man pictured standing on the left. On the right, one finds (probably) Bishop Georges de Selve, who was in England at the time, sent on a secret mission in the spring of 1533, when England was on the brink of succession from the Catholic Church. For the sake of illustration, suppose that this painting is a world. Its transcendental T thus measures the intensities of appearance of the various painted phenomena. At maximal intensity one likely finds Dinteville himself in his absurdly large fur coat. This intensity is the inverse of what does not appear at all, or the minimum. Very close to this minimum is the appearance of the crucified Christ behind the curtain in the upper left corner of the painting, which can only be seen on a quite close inspection. And what does not properly appear, at least from a frontal view, is the famous anaphoric skull at the bottom of the painting. Viewed frontally, it is only a stain, a smear or smudge on the carpet design. Its intensity of appearance *as a skull*, then, is μ .²⁰

The second operation is conjunction, by which Badiou intends to capture the phenomenological idea of the common between two beings which co-appear in a world. It is defined as follows: "given two elements p and q of T , that is two transcendental degrees, we

suppose that there always exists an element (written as $p \cap q$) which is the greatest of all those which are less than both p and q ” (LW 173/161).²¹ The point is to capture the “vulgar” phenomenological idea of commonness, which it does by designating that degree immediately inferior to both degrees, that is, it designates just what they have in common—or their “overlap.” To return to Holbein’s painting, both Dinteville and Selve share a certain appearance of stateliness. But the commonness of this appearance cannot be greater than their overlap. In short, what they share in common cannot appear greater than Selve’s stateliness, which is decidedly lesser than Dinteville’s in the painting. Again this transcendental degree is unique, as with μ , by antisymmetry. Given this definition, finally, it is clear that category theory can capture the set theoretical notion of disjunction by $p \cap q = \mu$. For example, the crucified Christ, almost totally covered by the green tapestry, is a symbol for what is not stately at all. Its conjunction with Dinteville’s stateliness, then, is empty and has a minimum of appearance.

The final basic transcendental operation is the envelope. The idea behind an envelope is to express through a single intensity (i.e. transcendental value) the entire intensity contained in a part of a world concerned (LW 175/163). What one notices in Holbein’s painting is the presentation of two realms: the stately, secular or profane realm, and that of the sacred or divine. Suppose one attends only to the realm of the secular, which takes center stage and occupies all the items between Dinteville and Selve, the green oriental tapestry behind them, the rugs on which they stand, and the men themselves. This peculiar portion of the painting, this regional stability, is the envelope.²² To capture this notion a preliminary one is required: the least upper bound (LW 176/164). Suppose there is a world \mathbf{m} with a transcendental T , and suppose further that there is a fragment S of \mathbf{m} such that $S \subseteq \mathbf{m}$.²³ In this case, then, S designates the secular realm. Let $B \subseteq T$ be the part of the transcendental that “contains all the measures of the intensity

of appearance for the elements of the part S” (LW 176/163). So B includes the intensities of Dinteville, the globe, which displays Europe, the hymnbook, the lute with the broken string, the oriental tapestry, etc. All the elements t of T with an intensity superior or equal to B are upper bounds. The smallest of these, say u, is the envelope of B, written $u = \sum B$.

These three notions are particularly important because they allow Badiou to formalize the derivative notion of dependence $p \Rightarrow q$, which can be used to capture both logical entailment and causation. This symbol means, formally, the envelope of all the degrees t of T such that $t \cap p \leq q$ or, $\sum \{t: t \cap p \leq q\}$ (LW 183/171). With this notion, Badiou is able to specify a classical logic as a Boolean valued transcendental world. This point, which he will use later, allows him to avoid commitment to intuitionism, which is the more natural form of logic for category theory, and so remain consistent with the classicism of *Being and Event*. Additionally, dependence allows him to ameliorate a lingering reductionist problem in *Being and Event*, which treated mathematics and science indiscriminately the same. How can one claim, for example, that mathematics, which according to Badiou operates by pure deductive fidelity (in classical logic), just is the same eventual process as science, which clearly uses experimentation to achieve its results? Here, with the notion of dependence, he no longer remains committed to the claim that science is mathematics, but only that the notion of physical causation as explored by science can be thought by categories. I shall return to the success of this reformulation below.

(c) *Rich Worlds*

The task that remains for Badiou is to demonstrate how these operations enable him to capture relations within worlds more robustly than the relations within set theoretical situations (models).

The answer comes in two parts. First, Badiou must provide an account of an object that can be formalized without relation to a subject, otherwise his logical phenomenology would fall to his own numerous criticisms of finite philosophy by positing an original synthetic unity in a subject (LW 205/193). Then he must address the relations among these objects.²⁴ Since these two portions of *Logics of Worlds* are quite technical, I shall here only chart the course of the development of these notions.

With respect to objects, the central point that Badiou establishes is the “postulate of materialism,” which supposes that every atom of appearance is real (LW 265/251). The anti-Kantian thesis here is that being and phenomenal existence are bridged, so that the transcendental of appearance accomplishes a *real* synthesis. This postulate, however, not only bridges the two domains, but also allows for a “retroaction of appearing on being” (LW 235/221). The most crucial result of this postulate is that the groupings of category theory may be taken as a way to unify ontological multiples, thus fully avoiding the descriptive poverty of set theory (specifically by allowing for a distinction between local and global differences, which the axiom of extension forecloses in set theory).

To understand the relation of being (the set or multiple) to appearance (defined by a complete Heyting algebra), it may be helpful to introduce a visual metaphor. Imagine two two-dimensional Cartesian planes one above the other. Take the lower one to be the ontological base and the upper to be the plane of appearance. What Badiou is interested in doing is connecting these planes. The first move then is to explain how a multiple appears, or how it comes to be manifest, in the second plane, which is done by establishing a function of connection from the lower to the upper plane. For the multiple x of a set A , the measure of its appearance within a world is determined by the function of appearance $\mathbf{Id}(x, x)$. This establishes how intensely the

multiple itself appears. Here, for the sake of example, one might consider the fur on Dinteville's coat to have an intensity equal to M . This intensity of self-appearance is a multiple's existence, which may be more simply symbolized as \mathbf{Ex} . From this self-appearance, it is possible to measure a multiple's intensity relative to another multiple, say $y \in A$, as $\mathbf{Id}(x, y)$. Difference, then, is governed by existence.

What Badiou is interested in specifying is what he calls a "real atom," which plays an analogous role in appearance to the natural atom found in being. Two preliminary notions elucidate the conceptual backdrop of this concept. The first is what Badiou terms a "phenomenon." If one considers the fur of Dinteville's coat as a phenomenon, one must not only consider its intensity of appearance, but also its difference from all other beings that co-appear in this world. That is to say, one must consider how it differs from the globes (both celestial and earthly), the oriental curtain, the nearly invisible crucifix, etc. A phenomenon of $a \in A$, then, may be defined as "*the set of values of the function of appearing $\mathbf{Id}(a, x)$ for all the x 's which co-appear with a in the set A* " (LW 259/245). Symbolically Badiou denotes a phenomenon as:

$$\Phi(a/A) = \{a, [\mathbf{Id}(a, x_1), \mathbf{Id}(a, x_2), \dots, \mathbf{Id}(a, x_\alpha), \dots] \mid x_\alpha \in A\}.$$

The second notion is a component of this phenomenon. Briefly, a "phenomenal component" of A "*is a function that associates a transcendental degree p to every element x of A* " (LW 261/247). The intuitive idea, then, is that this function $\pi(x) = p$ "measures the degree according to which x belongs to the component of A , of which π is the characteristic operator" (Ibid).

What then makes a component an atom? And more importantly what makes it real? The answer to the first question is not that the component is indivisible—this would make little sense,

since a component is just function of intensity. Rather, it is what would make a component unique. Recall that the maximum M , like minimality, is a unique intensity. Any component $\pi(x)$ that thus appears with maximal intensity is said to be an atom. Suppose, then, that one examines the two swaths of bright fur of Dinteville's coat as components of his stateliness. For the sake of example, presume that they both appear with an intensity equal to M . In this case one may thus say that while they are *ontologically* two beings, they nevertheless constitute a unique atom of *appearance*. This atom is real if it is strictly determined by an underlying element a of the set A . A real atom thus has two parts. First it has an atomic component. Second, it is directly linked to being (LW 265/250). One may now understand why the "postulate of materialism," though in no way inevitable in category theory, is nevertheless necessary for Badiou's enterprise: it ensures that the planes of ontology and appearance are linked. But one must be careful here. Just because one has to multiples x and $y \in A$ does not mean that both appear differently. Rather, one only knows that real atoms are linked to being.

This postulate allows Badiou to establish just how category theory can regroup sets. This is done first by establishing what an object of appearance is, and then by demonstrating how the relations between these objects can be traced back into the plane of ontology. This latter task is taken up first in the discussion of objects, and then in the conclusion to the "Greater Logic" by a discussion of the size of a world and the development of a universal relation. Here I am only going to take up the points useful to my interests.

First, I pause to review just what an "object" is for Badiou. His answer is that an object is simply a couple of a set A and a transcendental index, written (A, \mathbf{Id}) , provided that all the atoms of appearing, the referents of which are A , are real atoms. It is thus the generic form of appearance in a world (LW 265/251). One might say, then, that the lute between the

ambassadors is an object for two reasons: (a) its consistency is guaranteed by the operations of painting that make it appear as it does (e.g. contrasts, perspective, etc.), (b) every instance of uniqueness, or the One, in its appearing (e.g. horizontal axes) is linked to its multiple composition (e.g. the six cords).

Now in order to regroup being through these new objects, the relations among these objects must be different from set-theoretical relations. In particular, they must allow for local differences as well as global ones. Badiou thus sets out how objects can be localized and in that case how one can determine their compatibility and order. Without addressing the details, the crucial point here, which results directly from proposition five of the Greater Logic, is that these relations among categories allow one to form “a unity of a new type. In short, the latter is a retroaction on the logic of appearing on the ontology of the multiple” (LW 277/261). This is done by assigning an envelope to the order relation among objects. Since an envelope determines a regional stability, this operation on the relations among real atoms of appearance effectively determines a new order among sets.

The last step that Badiou takes in the Greater Logic is to establish the crucial operations of relations between objects or of the co-appearance of objects in a world. The first point of interest is that he restricts the number of objects appearing in a world (the cardinality of a world) to an inaccessible infinity, which, without the addition of new axioms, means that every world is denumerable.²⁵ This point is required for the logic of appearance, because one must recall that Badiou is here trying to establish that appearance, just like being, is stable. And it is only with a denumerable world that one can establish that relations remain closed on the world, and hence ensure its logical completeness (LW 359/340).²⁶

The second point of interest concerns the first step toward events, understood with respect to appearance (rather than their being). Badiou here establishes how, even though a world is complete (thus giving full sway to the power of classical reason), it is nevertheless the case that there exists an inexistent in this world from which the site for an event can be declared.

The technicalities here are quite extensive and not particularly germane to my own criticisms, so I shall let the following intuitive example suffice. Recall that two sets may have the same intensity of appearance, such as the two swaths of light fur on Dinteville's coat. It is also the case, however, that one could consider these phenomena only with respect to the secular world of the painting and never consider the almost invisible crucified Christ. One might recognize, then, that a multiple may equally appear in more than one world and in different ways. The paradigm case is clearly the anaphoric stain at the bottom of the painting. Viewed directly, from the secular perspective, it is a smudge, a kind of flaw in the representation of the stateliness of the ambassadors. Its appearance is minimal. Viewed from an angle, however, one can make out a skull, which marks how all those secular items of wealth are marked by death and the transience of existence. One could call this view the sacred perspective, which would thus highlight how Christ, the cross, can never totally be obliterated from view, so that its appearance (along with that of Christ) would be maximal. There is thus a contingency in the composition of objects, and this is just the same thing as saying "every object possesses, among its elements, an inexistent" (LW 340/323). That there is *a necessity of contingency* in the appearance of objects constitutes the impasse of total closure and the pass for events.

II Events and Intervention

Like Heidegger, Badiou also holds that it is the nothing that is more important than being (or beings). The famous twist is that for Badiou what is beyond being, which *is* literally nothing, may be named not only an event, but that it requires intervention—something which positively produces in the world—which is what Badiou calls “truth.” Though this aspect concerns the most technical portions of Badiou’s thought, I hope here to outline the just what makes this process “infinite.”

3. The Truth Process

It is helpful here to recall a point I made last chapter, namely that in *Being and Event* an event consists of three parts: (a) the existence of an excrescent multiple which is the condition for its occurrence, (b) a radically discontinuous process, and (c) its consequences (BE 225/203). This sequence, though not strictly speaking temporal, is at least epistemologically ordered, since one must inhabit an “historical situation,” or acknowledge the existence of what Badiou calls a multiple on the edge of the void to begin the process, and the discontinuity of an event must come before consequences (BE 194/174). I am thus going to follow this sequence in my own exposition of Badiou’s thought.

(a) Historical Situations

Above I noted that natural situations, or φύσις, are normal, rule-governed states in which one can verify one’s claims against the encyclopaedia of knowledge. They are a bit like Thomas Khun’s characterization of normal science. Historical situations, by contrast, are more like Khun’s

revolutionary science. They are the situations in which a revolution in the meaningful relations of a world occurs. Because they concern this change in meaning, Badiou takes them to constitute the most fundamental account of human temporality. This link to time is what accounts for the name “historical” (BE 232/209).

To express this task in the language of transcendental philosophy, one could say that since *Being and Event* is exclusively concerned with thinking all that can be thought of being through set theory, the basic relations of set theory assume the role of expressing the theory of representation that the faculty psychology plays for Kant. This means that in a normal situation the relation that *presents* a multiple is membership. Accordingly, that which *re-presents* a being is inclusion. To change a normal situation, then, an historical situation separates this link between presentation and representation to open up a space for events. Badiou does this by focusing on the power-set operation, which he calls the “state” because its function is to represent all the members of a given set, much as the state represents its citizens.

Two points are crucial for the relation of presentation and representation. First, the power (or measure) of the state exceeds that of its situation immeasurably. Second, the state cannot count everything completely. The first of these points is secured by two famous proofs: one by Georg Cantor, the other by Paul Cohen.²⁷ The second of these points, which is of more interest for the present investigation, can be understood as follows. The goal of the state is to count all possibilities of counting in a situation, and thereby to maintain absolute control over it. Since the void is nothing, however, nothing can prevent its inclusion in every situation, even if it is not a member of that situation.²⁸ Thus, while the state both can and must re-count every situation, a direct correspondence is not assured. Certainly there are *normal* multiples that are both counted and re-counted. But there can be other *excremental* multiples that are simply re-

counted without ever having been originally presented, as well as multiples that are *singular* so that they are only ever presented and not re-counted.²⁹ This mismatching of presentation and re-presentation inherent to every situation or world thus ensures that some multiples will remain “on the edge of the void” (BE 224/202). I note in passing that the inexistent plays exactly the same role in *Logics of Worlds*, which I illustrated above by means of the anaphoric stain in *The Ambassadors*.

To illustrate what is meant by being on the edge of the void, consider what recently happened to Virginia Soto in Washington D.C. Ms. Soto is a Hispanic woman of slight build, about 130 lb and 5’ 3” tall. She was arrested on suspicion of prostitution April 28th of 2007, and since she had previously been arrested and *filed* as a man, this time she was imprisoned in a men’s jail. Ms. Soto was strip-searched by two male officers and handled by seven others, but despite her continual protest that she was a woman, it was not until two days later that a medical doctor finally declared her a woman.³⁰ For Badiou, this kind of mix-up is easily explainable. Here the signifiers ‘woman’ and ‘man’ function as categories the state uses to classify multiples. In this case the person Ms. Soto was re-presented under the signifier ‘man,’ which simply did not apply to what was presented. She, then, stands as *singular* multiple, since she is presented but not re-presented, while ‘man’ is an *excrement* multiple, since it is a representation of what is not present.³¹ In Badiou’s terminology, then, Ms. Soto is a multiple on the “edge of the void.” The importance of these multiples on the “edge of the void” is that they can serve as a site for an eventual declaration, and so can begin a political truth.

To address the formal character of an historical situation, Badiou begins by supposing α to be a non-void multiple. If one takes its singleton $\{\alpha\}$, one can recognize that α is on the edge of the void for the singleton. The reason for this is that $\{\alpha\}$ has only one element, namely α , but

does not present any of α 's elements. Thus within the situation $\{\alpha\}$, α is an eventual site: "it is presented but nothing which belongs to it is presented" (BE 206/185). More succinctly, a situation is historical if and only if for some α and some element B of α : $\alpha \cap B = \emptyset$.

That there is always for any situation an historical site is in fact secured by an axiom of ZF, namely the axiom of foundation which is formalized as follows: $(\alpha)\{(\alpha \neq \emptyset) \rightarrow (\exists \beta)[(\beta \in \alpha) \& (\beta \cap \alpha = \emptyset)]\}$. This axiom is thus crucial for Badiou's formalization of excess for two reasons. First, the status of \in -minimality, and thus the stability of nature is precisely what this axiom guarantees. Second, this axiom guarantees that the event can have no strict ontological formulation (BE 212/190). Recall that the notion of an event is the impossible for being (or appearance). What is impossible for ZF is self-membership ($\alpha \in \alpha$), on pain of Russell's paradox. While the axiom of separation ensures that such a set cannot be constructed (a *de facto* justification), its theoretical possibility is not ruled out. The occurrence of such a mathematical symbol, then, must be prohibited *de juris*. The axiom of foundation thus excludes self-membership *de juris* as follows. Suppose there exists a multiple α that is a member of itself ($\alpha \in \alpha$). Its singleton $\{\alpha\}$ would thus be unfounded. The reason for this is that to $\{\alpha\}$ only α belongs. Yet, since α belongs to itself, their intersection is not void ($\alpha \cap \{\alpha\} = \alpha$), which the axiom of foundation prohibits. Thus, while an historical situation is the site for the name of an eventual procedure, both its existence and its mathematical impossibility are secured by the axiom of foundation (it thus plays a role similar to the inaccessible size of a world of appearance, which ensures both its logical completeness and the necessity of an inexistent).

(b) *Forcing I*

While an event is *not* described by ontology, any effect of an event within being is described for Badiou by the axiom of choice and Cohen forcing. To simplify the exposition of these points somewhat, I shall reverse Badiou's order so that I address Cohen forcing before the axiom of choice, since it is the former that formalizes the being of an event while the latter formalizes the faithful intervention itself. My plan in this section is to take two passes at Cohen forcing. First, I shall provide a kind of overview of the process along with some mathematical contextualization that Badiou omits. Then I shall review some of the major portions of forcing that Badiou presents in the final chapters of *Being and Event* with his notation rather than the more standard mathematical notation.

To begin, I would like to note that Cohen's technique of forcing was developed in order to show that Cantor's Continuum Hypothesis is independent of ZFC. I am going to prepare the way to a rough understanding of "forcing," then, by beginning with what an independence proof is. An independence proof is one that shows that a statement can be neither proved nor disproved given a set of axioms. Cohen himself did not undertake to prove the consistency of the Continuum Hypothesis with ZFC. This was a task that Kurt Gödel undertook in the late 1930s. He did this by restricting the definition of sets (i.e. V) to constructible sets ($V = L$). The motivating idea in his proof is the following. Since it is the impasse with transfinite cardinals, produced by the power set operation, which caused the excess of the state over the situation, it is not unreasonable to suppose that it could be closed if one could define sets without recourse to the power set operation. This is accomplished by interpreting very strictly what can be separated out from a set according to the axiom of separation.³² Succession of levels in the hierarchy, then, is determined in terms of this strict definability. In parallel with the above definition of the hierarchy V , one could define L as follows:

$$L_0 = \emptyset$$

$$L_{\alpha+1} = D(L_\alpha) \text{ for a definable successor ordinal of } \alpha$$

$$L_\alpha = \bigcup_{\beta \in \alpha} L_\beta \text{ for limit ordinals}$$

The result is a constructible universe, which, though poor in properties, made the Continuum Hypothesis follow necessarily.

Gödel thus showed that the Continuum Hypothesis is relatively consistent, with the result that it cannot be disproved in ZFC by using the method of *inner models*.³³ He produced a formula $L(x)$ that defined a transitive subclass L of the set theoretical hierarchy V , which has the property that it is a first-order universe in which the axiom of choice, the continuum hypothesis and the axiom of constructibility are all true. After Gödel's work, then, Cohen was left with the task of showing that it could not be proved either.

Two implications of Gödel's work followed for Cohen. First, Cohen's method, forcing, could only work by extending the standard model of set theory by using elements that are non-constructible sets. This much should be obvious, since Gödel developed constructible sets to produce the opposite point that Cohen wanted. Second, since Gödel used a method of inner models, for Cohen to prove the independence of the Continuum Hypothesis it was thus necessary either to change the meaning of "model" or of "inner." In fact, he tried both. First in 1963 he produced a proof using a non-classical model. The general strategy was to show that the Continuum Hypothesis was independent in this model, and then that a classical logic could be embedded in this non-classical model. The problem with this approach, however, is that it provided no classical models at all, unlike Gödel's L , so that mathematicians felt something more ought to be possible. So, Cohen produced a second proof which tinkered with the meaning of "inner," so that one might say that it works by way of immanent transcendence. Rather than

simply construct a model S within a classical, first-order universe, he also constructed a model S' “next to” the first model. This “proximity” is regulated by the existence of members in S' that have “names” in S , so that the truth or falsity of assertions about S' can be considered *within* S , even though S' is not itself a submodel of S . In short, one has here a structure of immanent transcendence such that one can determine certain truths in S' because the names within S find their quasi-reference there (i.e. the reference goes from S to S'). This immanent transcendence, roughly, is forcing.

A technical point about forcing, the reasoning for which I shall not here explain on account of its complexity, is that this solution comes with a price: S must not be simply a transitive model for ZF, but also denumerable. This universe is thus rich in properties, but poor in size. While this might be troubling for mathematics, one must bear in mind that Badiou is only interested in formalizing the effects of events, since strictly speaking events are ontologically illegal. In taking up this second approach, then Badiou need not be concerned with the mathematical limitation of the operation.

(c) *Forcing II*

I hope that the foregoing proves to be a sufficient overview of the process of forcing. I am now going to address the more specific details that Badiou outlines in *Being and Event*. My goal is not to reproduce all of these, but to try and cut a path from the ground model, what Badiou calls a fundamental quasi-complete situation, to the subject, so that I am able to highlight the important moments in the operation of forcing.

Since the key to the manipulation of names from one model to another is the concept of a generic set, which Badiou symbolizes by “ φ ,” I shall begin with it. First, I note just why Badiou uses “ φ ” here instead of the more general “G” found in mathematical literature. The choice here is clearly Lacanian. For Lacan in *Seiminar XX*, feminine *jouissance* is what stands in excess of the masculine order of desire. Badiou appears thus to be suggesting that this account of Cohen forcing is the appropriate reworking of Lacan’s position after the Cantorian Revolution.

Turning now to the use Badiou makes of the generic set, the first notion one must grasp concerns the set of *conditions*. Given a denumerable, transitive model of ZF called S , the generic set will be a proper part of a set of sets called conditions, which Badiou symbolizes as \odot . Formally, this is to say: $\varphi \subset \odot$. These conditions have the following three properties: they are partially ordered, they are coherent (a criterion of compatibility), and they exhibit a certain “liberty” (BE 466/ 427). The “liberty” about which Badiou speaks means the following. Since \odot is partially ordered, its members $\pi_1 \dots \pi_n$ “dominate” one another. For example, if π_1 is the ordered set $\langle 0,1,0 \rangle$, and π_2 is the set $\langle 0,1,0,1 \rangle$, one could say that π_2 dominates π_1 , because it provides more information (roughly, one is included in the other). The liberty to extend the set of conditions, then, is that every condition must be dominated by two incompatible conditions. For example π_2 must be dominated by the condition $\langle 0,1,0,1,0 \rangle$ and $\langle 0,1,0,1,1 \rangle$. Only in this way will there be a real choice at stake in the extension of the situation. Second, there are rules intelligible to an “inhabitant” of S that allow one to designate a subset of \odot as *correct parts*. Finally, certain of these correct parts, “because they avoid any coincidence with parts which are definable or constructible or discernible within a situation, will be said to be *generic parts*” (BE 467/427). The key to this point is that for a set $\delta \in \odot$, if δ is discernible it is not a generic set φ . Such a set δ is said to be discernible if there is some property $\varphi(x)$ that can specify all the

elements of δ . Any such property, however, will have an exterior set of dominations in \mathbb{C} , which corresponds to $\sim\varphi(x)$. The way in which $\delta = \varnothing$, then, is if δ intersects *every* domination, since in this case it intersects dominations that correspond to the negation of any stated property $\varphi(x)$ (EE 406/370). Thus, a generic set \varnothing is a correct part of \mathbb{C} , such that its members are not discernible in the situation (model) S .

A certain ontological *coup de théâtre* is required for Cohen forcing to work by means of a generic set. The reason for this is that such a generic set \varnothing necessarily does not exist in S . While an “inhabitant” of S can think this concept, if \varnothing was not only included but belonged to S , then its exterior in \mathbb{C} would also belong to S , since every conditioned set is dominated by two incompatible conditions. But \varnothing , being generic, would then also intersect this domination, and thus intersect its own exterior, which is absurd (BE 409/372). An inhabitant of S , then, may only *believe* in the existence of an indiscernible \varnothing . To discuss a generic set, an ontologist must take up a position exterior to the model S , and she may conclude that if S is denumerable, then a generic part exists (i.e. is a subset of the situation S) (BE 412/374-5).

A simple question follows from this result: to which situation does \varnothing belong? The first step in answering this question is to add \varnothing to S , so that one obtains a *generic extension* of S , which we above called S' . The second step, then, is to accomplish this extension *with the resources* of S , so that it might be intelligible to an inhabitant of S . To accomplish this trick one must modify the language of S so that it is possible to *name* in S the hypothetical elements of its extension. Without addressing the details, these names allow one to calculate their referential value in S' to determine whether they are veridical (correct) in that situation. In this way one can determine that the generic part is in fact a member of the generic extension, while remaining indiscernible therein (BE 467/427).

It is possible now to state just what forcing is. Set-theoretical “forcing” is the relation between conditions and the formulas applied to names (BE 467/428). One must be careful to observe the complexity of the problem (if not its details). If one has a statement $\varphi(\alpha)$, the supposition that α belongs to the generic extension is unrepresentable in S . One may, however, have a statement $\varphi(\gamma_1)$, in which γ_1 is a hypothetical *name* for an element α of the generic extension, which may better be written $R_{\varphi}(\gamma_1)$ for the referential value of γ_1 in the generic extension of S by φ . While there may be no possibility of a “return route,” so that the veracity of $R_{\varphi}(\gamma_1)$ in S' would imply $\varphi(\gamma_1)$ in S , we can establish that to a formula $\varphi(\gamma_1)$ in S that is veridical, there must also correspond a formula $R_{\varphi}(\gamma_1)$ in S' that is veridical. Exterior to the situation, then, this referential control amounts to establishing the equivalence between a controllable relation in the situation S and the veracity of that statement in S' . Thus, veracity in the generic extension is *conditioned* by S (BE 450/411). The relation of forcing, then, allows one to establish both similarities and, most importantly, differences between S and S' , such that it is possible to show that sets of conditions exist which force in S' “the set of parts of ω_0 to surpass any given cardinal of that extension,” revealing the independence of the Continuum Hypothesis (BE 468/428). It is thus possible to force an indiscernible, which appears undecidable in S , to decision.

Here one might ask: what is it precisely that supports the relation of forcing? The answer is the *subject* of an evental procedure. By naming an evental site, the subject then undertakes a faithful investigation of that evental truth. The reference of these terms is literally meaningless in the situation S , but have a second-order reference to S' . This truth, then, which is not yet veridical in the situation S , is enacted in the time of the *futur antérieur* (future perfect). This is to

say an eventual truth only makes sense as it *will have been (aura)* (BE 436/398). The subject, then, is she who decides an undecidable from the standpoint of an indiscernable (BE 445/407).

(d) The Inquiry of Truth

At this point it is possible to address how the inquiry of the truth procedure is carried out. Badiou proposes that the axiom of choice formalizes this process, and it is here that one sees why the real choice in the conditions © was a necessary requirement. The key to this axiom, as Brian Smith notes, is that it allows Badiou to formalize a kind of controlled anarchy.³⁴ Formally, the axiom of choice can be written as: $(\alpha)(\exists f)[(\beta)[(\beta \in \alpha \ \& \ \beta \neq \emptyset) \supset f(\beta) \in \beta]]$. This definition states that if a non-empty set exists, it is possible to construct a new set (technically a function) by selecting a single *arbitrary* element from each of the subsets of the original set (BE 248/224). So, for a set α , the power set of α , namely $\wp(\alpha)$, constitutes its subsets. The function of choice then defines the existence of a new set that selects one element from each of the elements of the set $\wp(\alpha)$. At a finite level there is simply no need for this axiom, since there is really no *free* choice. All such sets already coincide with one of the initial set's constructible subsets. For example $\wp(\alpha)$, if $\alpha = \{a, b\}$, is equivalent to $\{\emptyset, \{a\}, \{b\}, \{a, b\}\}$. Here only two possible sets are constructible by choice that do not appear in $\wp(\alpha)$, namely $\{a, b, b\}$ and $\{a, b, a\}$. But one can see that the former is equivalent (by the axiom of extension) to $\{a, b\}$ and the latter to $\{a, b\}$ (by the same axiom).³⁵ At the infinite level, however, one could understand the axiom of choice to extend the scope of the power set axiom, provided one's sets are not constructible, since no such coincidence is assured. The multiple that results, then, is one that is aleatory in character, since no general function exists that could specify, in general, what multiple results from another

by this means. As the faithful inquiry proceeds, then, a subject selects multiples that are connected to the event and those that are not (BE 259/234). This selection of multiples belonging to the event, something that always remains in dispute for those who recognize an event (e.g. Does fidelity to October 1917 entail Stalinism or Trotskyism?), is both an infinite and entirely aleatory endeavor, which aims to force a new situation into existence.

4. Living

As the account of relations in *Logics of Worlds* is greatly expanded, so too is the account of change. The simplest point at which to begin is Badiou's account of an evental site. Rather than simply declaring an evental site e_x a multiple of self-membership composed simultaneously of elements from the site and itself, Badiou describes a site by three properties. "1) a site is a reflexive multiplicity, which belongs to itself and thereby transgresses the laws of being. 2) A site is the instantaneous revelation of the void that haunts multiplicities, by its transient cancellation of the gap between being and being-there. 3) A site is an ontological figure of the instant: it appears only to disappear" (LW 389/369). The first point remains consistent with the ontological explication of evental sites. The second, however, makes use of the characterization of the in-existent of a world (the gap between being and appearance), which results from the necessary contingency of worldly objects. Finally, the third point marks a principle innovation. No longer is an event determined both ontologically and by a mysterious naming. Rather, a site is now equated with evental multiplicity strictly. It thus appears and, because self-membership is illegal, disappears instantly. What matters now, then, is the intensity of the sites' appearance and its consequences. This new topology of the site changes the binarism of *Being and Event*,

which established that there was either an event or not. Here instead we have four possibilities for changes, and Badiou reserves the name event for only the last form.

The first of these forms is the simple *modification*, which does not require a site, and expresses the forms of change in a world already dictated by rules. Next, one has *facts*, which are changes that occur with a site, but lack maximal intensity. Its change, then, remains internal to the established transcendental correlations. Third, there are *singularities*, in which the intensity of existence is maximal (LW 393/374). What is interesting is that even singularities do not always deserve the name “event,” for one may distinguish between singularities in which the consequences are maximal and those in which they are not. Only when consequences are maximal, fourth, does one have an event (LW 395/376). What consequences count as maximal? Those in which the existence of an inexistent object, noted $E \emptyset_A$ since its degree of appearance is minimal, becomes maximal. This forces a change in the transcendental index of a world, and thus deserves the name “event.”

The way in which an event occurs has two parts. The first of these establishes the category theoretic account of decision, the second the formation of a subject body. These two aspects, which were brought together by the axiom of choice in *Being and Event*, are here elaborated substantially. I shall begin with the rather paradoxical concept of a non-subjective account of decision, which is formalized through the theory of points.

The discussion of points is quite strikingly counter intuitive and anti-phenomenological. It has two aspects: a “subjective” description of choice in category theoretic terms, then a demonstration that the functions used to formalize this description are in fact equivalent to the (mathematical) topological definition of a place. The chapter, in short, constitutes Badiou’s post-Cantorian recuperation of Freud’s *Wo es war, soll Ich werden* (where it/the id was, I/the ego

should come to be), and may be taken as his response to Lacan on this score. This is why he closes the conceptual exposition of the notion of choice/point with the untranslatable statement: “*Là où je suis, je ne suis là qu’au point où j’y suis,*” (LW 446/424).³⁶

With this counter-intuitive isomorphism between decision and place in mind, the process of decision, though quite technical in its details, has a simple motivation. In order for an event to take place, it must be possible to describe the decision that changes an inexistent object’s value to its maximum. This decision requires a filtering into one of two options: for or against the event. Since any world has a denumerably infinite number of values, it must be possible to reduce these, for the set in question, to a Boolean or classical world that admits only of two values 0 and 1. Such a reductive operation can be carried out by establishing a structural homomorphism between the transcendental T of a world and a binary transcendental T_0 . A function is homomorphic if it conserves the operations of conjunction, \cap , and the envelope, Σ . A point, then, is a particular kind of homomorphic function (viz. surjective) from T to T_0 (LW 461/438). This point localizes the body-of-truth with regard to the transcendental, and thus captures the choice for or against an event. Since no mention need be made of subjectivity here, only place, this account avoids the trap of finite thinking, which would posit the subject as the unity or form of presence necessary to account for choice.

The process by which one undertakes a truth process can now be described as the formation of a body: “Point by point, a body reorganizes itself, making more and more singular consequences appear in the world, which subjectively weave a truth of which one could say that it will eternalize the present of the present” (LW 525/503).³⁷ A body thus presupposes (1) a world with (2) an eventual site marked by a trace ε . The body thus (3) incorporates elements to this site that cannot be reduced to the trace. Only (4) the effective part of the body is able to

decide these points. Finally, (5) new concepts are produced that envelop the effective part, such as “modern algebra” or “atonal music,” which Badiou calls organs (LW 511/488). In a polemic against Deleuze, then, Badiou’s successful subject is only ever a body *with* organs.

The payoff for all of this work is to allow for a more complex account of the subject. In *Being and Event* the subject itself was described in binary terms: if there is a subject, it is affirmative, otherwise there is no subject. Now Badiou has recognized that even reactionaries must be creative in the wake of an event: “to resist the call of the new, it is still necessary to create arguments of resistance adjusted to the novelty itself” (LW 62/54).³⁸ The reactionary subject, then, urges that the costs of the event are not worth it, and that one ought to take a more moderate route. In a similar vein, the obscure subject wants to return to the prior order. Badiou suggests this is the position of the patrician of ancient Rome in reaction to Spartacus and the slave revolt (LW 62/54). Finally, Badiou suggests that it is possible for a subject to be resurrected. The avatars of Spartacus himself return in the slave revolt of the French Revolution, in the “black Spartacus” who is Toussaint-Louverture, or even Rosa Luxemburg (LW 73/64). All this suggests that if dying is being reduced to a minimal degree of appearance, the only way to live is to engage in an evental procedure. To live, then, is to move from one’s animality to a superhuman immortality.

III Mere Events and Emergence

My hope is that the foregoing may be a sufficient Socratic exposition of the philosophical joints of Badiou’s onto-logical project. What precisely is one to make of it? If this exposition has been rather detailed, it was undertaken in order to ensure that the following arguments hit their mark.

For it appears to me that it is no longer possible to turn back in philosophical thought to some time before Badiou's accomplishments. One cannot, especially if one is a hermeneutic philosopher, act as though the Cantorian Revolution had no philosophical import. My questions, then, concern how one is to go forward in thought. Is it sufficient to remain with Badiou? Is it necessary to go beyond him? If so, how exactly?

5. The Appearance Problem

One of the most striking difficulties that Badiou faces in elaborating his intricate logic of appearance is the status of what he calls "vulgar phenomenology" in the examples (LW 214/202). They are vulgar since they still make use of consciousness and particularly the first-person perspective to make their point, rather than appeal to the univocal rigor of category theory. Above I made use of Holbein's *The Ambassadors* in this "vulgar" way. Yet, a tension here is evident: these examples must be simply examples (to let the transcendental algebra speak) and not examples (for how else could this algebra actually capture phenomena?). Given Badiou's commitment to classical logic, he just cannot have it both ways.

This tension becomes a serious philosophical problem when one recognizes what is at stake. For Badiou has in no way shown what he needs to show: that this vulgar phenomenology—that is phenomenology of the first-person perspective—is *reducible* to his transcendental algebra. In short, even if my first-person phenomenal experience is simply an epiphenomenon of a more complex bio-chemical substructure, the intelligible relations of which are to be captured by category theory, one still must pay enough attention to the first-person perspective to reduce it. To recall the arguments of the first chapter, one finds here just where

both Badiou's and Meillassoux's critique of phenomenology is at its weakest. Both founder on the same rock as so many other (usually Anglo-American) materialisms: the explanatory gap between first-person consciousness and one's reductionist aims. This problem is what may be called *The Appearance Problem*.

In response, Badiou could take up a tactic similar to what Daniel Dennett or Thomas Metzinger have done, which is to suggest that the marks of first-person phenomena, e.g. qualia, are so confused one should simply do away with them.³⁹ Yet, even in this case one would have to undertake the apparently impossible task of bridging the explanatory gap.

The result for the present investigation is that any philosophical approach that could overcome *The Appearance Problem* would have a certain advantage relative to Badiou's own position. At the very least, since phenomenological-hermeneutics is devoted explicitly to the non-reducibility of first-person consciousness to third-person descriptions, one can discern the beginnings for why it is that I think this "unfashionable" theory still has something to offer.

6. The Suturing Problem

One item that I did not address in my critical exposition of Badiou's onto-logy is the status of philosophy as conditioned by the four eventual procedures. The reason for this is that this topic has become one of the trickiest in the literature surrounding Badiou's thought. It may be best to address it in one go, then, and to do so in light of the particular criticism I should like to raise.

Philosophy for Badiou is not a truth procedure. "At best, philosophy is *conditioned* by the faithful procedures of its times" (BE 375/340). The means by which Badiou accomplishes this task could not be more transparent. If mathematical science is ontology, then Badiou must

simply translate its results into meta-ontological or philosophical discourse. Similarly, it is Mallarmé who provides the poetic annunciation of the form of the event, so that Badiou must find the appropriate mathematical co-possibility to think this statement. It is for this reason that the turns to Cohen forcing. If Saint Paul is the original political militant, then Badiou must think faith, hope, and charity in a way that is consistent with evental truth procedures. Finally, if love is announced by the psychoanalytic discovery of the impossible relation between sexes, then it must be possible to think this *Two* as an event.

Because philosophy is a second order activity for Badiou, one that reflects on all truth procedures rather than founds them, philosophy is suspended, is halted in its activity whenever “the free play required in order to define a regime of passage, or of intellectual circulation between the truth procedures conditioning philosophy” is not available.⁴⁰ Such blockage usually results when “philosophy *delegates* its functions to one or other of its conditions,” which is what Badiou calls a “*suture*” of philosophy to its conditions.⁴¹ For example, Heidegger submits the whole origin of truth to the poem, while early analytic philosophers submitted it to science. The imperative not to suture philosophy to one of its conditions, then, is a quasi-fifth condition.⁴²

Given the character of philosophy as conditioned by truth procedures, one notes immediately that not all truth procedures are created equal in Badiou’s corpus. In *Being and Event* it is clear that the two truth procedures that are most important are mathematical-science and poetry. The reason for this is that Badiou envisions philosophy as concerned with Truth, which is the thinking of truths together (C 66/11). This is to say, philosophy is a meta-truth procedure, but equally evental in its character. This is why he begins his own thought with axioms, just as much as contemporary set theory does. In its capacity as a meta-truth procedure, or as a Truth procedure, “philosophy borrows from two of its truth procedures: mathematics, as

paradigm of the proof; and art, as paradigm of subjectivating power” (C 67-8/13). It is by borrowing these two procedures that philosophy seizes truths as if by two pincers. Since each truth procedure, however, operates on precisely what is *not* presented as determinable sense by the encyclopaedia of knowledge, philosophical Truth is not an interpretive (read: hermeneutic) process but a *subtractive* one—one that works on what is subtracted from rule-governed meaning.

Though this account does much to avoid potential problems, it is not clear that the status of philosophy as Badiou understands it is problem free. I shall begin by asking a series of question to which Badiou might be able to respond. Concerning the two pincers of Truth (mathematics and poetry), one cannot say that they symmetrically provide one with the notions of being and event. For while set theory does provide an account of being, Mallarmé’s statements on the event hardly provide the elaborate framework of immanent transcendence that one finds in Cohen forcing. What reason is there for this asymmetry? Similarly, why is it that poetry provides the condition for the event and not, say, love or politics? Why these two pincers and not others? And even if a good reason can be given for why poetry should do this, why should the statements by Mallarmé be privileged? Aside from personal preference, how can one make any of these claims? Certainly other poets have addressed this topic, but perhaps not in the same way. Would this change the requirement of thinking the matheme of the event? Would Cohen forcing no longer suffice? In defense of Badiou, Justin Clemens seems to have provided the best response possible to these questions: “every ‘successful’ philosophy is therefore, at best, built on a constitutive instability.”⁴³ This is to say, every philosophy begins with a wager on what counts as important and why. Such is the risk one takes in any eventual procedure.

While this response is adequate as far as it goes, it raises *two* related problems that may be called (taken together) *The Suturing Problem*. One may broach the first of these by acknowledging that mathematicians today prefer classical set theory. Still, Grothendieck's interest in developing category theory was explicitly to propose a kind of mathematics never before seen, and it may yet be the case that this occurs. In this instance, the relation of Badiou's two major works would have to be reversed, and this would drastically alter his account.⁴⁴ One of the key sticking points here seems to be Badiou's commitment to classical logic. This is the case not only because category theory is more naturally intuitionist, but also because some of the central notions category theorists wanted to perform, such as composing functions from the set of all sets to other similar sets, requires the use of paraconsistent logics—even dialetheism (for which it is possible that there are true contradictions). How exactly is Badiou to sort out the relation of logic to mathematics? If one accepts dialetheias, it is possible to prove the completeness of ZF (though one clearly must give up its consistency).⁴⁵ Such a result, then, would change the significance of the model theory used in Cohen forcing by making it altogether unnecessary. By thinking the relation of philosophy to such a restricted range within a given condition, Badiou seems to have foreclosed the philosophic significance of advances within that condition. Or, at the very least, he has not given us a way to address their ongoing character as live, investigative disciplines. To put the point another way, Badiou's position has synchronic strength, given the current mathematical consensus, but is not only diachronically weak, it is diachronically *closed*. Certain formulations of mathematics and logic simply cannot change, for if they were to change, Badiou's own account would be ruined.

This point of diachronic closure leads one to the second problem: Badiou has not provided a way to evaluate the relative success of one philosophical thought of the

compossibility of conditions to another. But this is entirely the point, one might respond, since any eventual procedure is necessarily aleatory! I am agreed on this score, but what I have in mind is something more specific: how exactly is philosophy a condition for philosophy? That philosophy seems to be such a condition is exhibited not only by Badiou's repeated premising of his account on philosophical advances in the introductions to his work (recall that Heidegger is named in the first sentence of *Being and Event*), but also in the historical meditations or sections of these works. There is thus a self-reflexive point of consistency that seems not to be acknowledged when Badiou establishes philosophy as concerned with Truth. Without an account of philosophy as a condition for philosophic thought, how can one be sure that one has avoided some form of meta-suturing?

The guiding thread of these two points is self-reflexive consistency. Diachronic closure not only stresses the immensity of the risk taken in the construction of Badiou's philosophical Truth, but also its incapacity to fully address mathematics as a discipline, as a truth procedure. What he has done is pick out a certain set of mathematical results—results that may yet be revised—and developed his philosophic position from them without ever addressing mathematical inquiry, mathematics as a practice. For anyone schooled in the Anglo-American thought on the philosophy of mathematics, the static character of Badiou's appropriation of mathematics is one of its most glaring defects. Is it not possible to do something more here? Would not any philosophical position that respects the integrity of a truth procedure as developing fare better than Badiou's? Similarly, while I am sympathetic to Badiou's desire to break philosophy from its contemporary historical scholasticism, I cannot rest content with an unthematized account of philosophy as a (meta?)condition for philosophy. Because suturing concerns the relation of philosophy to its conditions, it is a point of self-reflexive critique. Since

both of these points concern self-reflexive consistency, I think I am justified in unifying them under one title: *The Suturing Problem*.

7. The Inexistence Problem

What I call *The Inexistence Problem* is in fact two reciprocally related problems that emerge from the declaration of an inexistent as the beginning of an evental process. On the one hand, I think it can intelligently be argued that Badiou has not yet produced a sufficiently fine grained account of evental disagreement, and as a result cannot explain (in the case of science at least) the reason why scientific revolutions are taken to exhibit a quasi-advance. On the other hand, it also seems to be the case that Badiou has not yet produced a robust enough account of consensus formation. This point is critical because it exposes just how underdeveloped Badiou's philosophy of science is. To develop the first point, I shall extend one of Peter Hallward's concerns about Badiou's project. To develop the second point, I shall draw an analogy to an argument Larry Laudan has made in the philosophy of science.

(a) *Evental Disagreement*

In his introduction to his translation of Badiou's *Ethics*, Hallward raises a critical question: "Does Badiou have a sustainable theory of ethical *deliberation*?"⁴⁶ Recall that ethics for Badiou concerns whatever enables one to continue in a truth process. Fidelity to a truth is thus a key ethical virtue. What Hallward has in mind when posing his question concerns how it is that Badiou can avoid arbitrariness in remaining faithful to an event. To return to Badiou's example,

if both Stalinists and Trotskyites are faithful to the October 1917 revolution, and continually bickering between themselves concerning who is the true heir to the revolution, how is this ethical deliberation to take place (BE 259/234)? To make matters worse, how is one to exclude the possibility of an absurd militant, such as a Libertarian Marxist? Such a person might claim, for example, that fidelity to the October revolution requires completely free market economies and the absence of government regulation of social affairs. While this scenario is clearly absurd, the problem is that given the description of evental fidelity in *Being and Event*, it is a theoretical possibility. One must recall that aside from the *name* of an event and its site, any faithful inquiry will accomplish the evental truth, since this process is described only formally. It is on account of considerations such as these that Hallward urges that there must be a “minimum upon which we must all agree, *so as to be able to disagree*.”⁴⁷

In *Logics of Worlds* it appears that Badiou has taken some steps to remedy this problem. First, I note that the Libertarian Marxist would be considered either a reactionary subject or (more likely) an obscure subject. Still the ability to sort out the difference here turns on one of the more technical points on subject bodies. Badiou is able to establish that “all the elements that are incorporated into an evental present are compatible among themselves” (LW 507/487). The proof, which I shall not reproduce here, shows that for two different elements of a site x and y , it must be the case that $Ex \cap Ey \leq \mathbf{Id}(x, y)$. Since this is precisely the form of algebraic compatibility (proposition 3 of the logic of appearance), it seems Badiou has met Hallward’s minimum that is required for disagreement.

What I would like to point out here is that this response is still inadequate. The minimum for disagreement, or a compatibility among objects in an evental site simply fails to capture the ongoing character of (at least) mathematical and scientific research, which are evental

procedures for Badiou (the same one in fact). The point to be made here is that scientific investigation proceeds by establishing not simple compatibility among results, but what Imre Lakatos called positive and negative heuristics.⁴⁸ The former, which is also called the “protective belt,” provides domains and rules for investigation, while the latter provides strictures for what is not to be questioned, and so is called the hard core.

Thus far the deepened objection merely claims that Badiou’s process of forming subject bodies is not sufficiently fine grained. It must also be noted, however, it is similarly not up to the task (1) of capturing the sense of quasi-progress or (2) of providing deliberative rules for accepting one eventual process over another. To make the first of these corollary points, I note that for Badiou, when an event forces an inexistent object into maximal appearance (i.e. $(\mathbf{E} \emptyset_A = \mu) \rightarrow (\mathbf{E} \emptyset_{A=M})$), this does not leave the transcendental T intact (LW 417/394). Rather it causes another element of A, say δ , to come to occupy the position of the minimum μ . This is to say, it causes the “destruction” of δ , since reduction to a minimum of appearance is how Badiou captures the phenomenological notion of destruction (LW 418/395). To use a well known scientific example, when Lavoisier’s account of combustion succeeded over Priestly’s account of phlogiston and de-phlogistonated air, it forced the latter to inexistent in the scientific world. Yet, and here is the rub, today we understand this result as a quasi-advance. It is only a quasi-advance since the rules of scientific investigation change, but an advance none the less (the same could of course be said for one of Badiou’s favorite examples: the Cantorian transfinite in relation to infinitesimals).⁴⁹ Thus, the second corollary point weighs heavily here. Badiou has provided no way to understand these radical changes as advances. Lakatos, for example, has an account of progressive and degenerating research programmes, which provides the grounds for accepting one over the other. Yet, despite the exceptionally complex account of category theory

in *Logics of Worlds*, it has no place for any treatment of notions such as progressive or degenerating programmes.

A plausible response here is that Badiou is simply unconcerned with establishing quasi-progress, since such an account can only be established relative to the rule-governed logic of a world—that is according to normal situations. To clarify my point, it is necessary to keep in mind *The Suturing Problem*: Badiou simply does not address the ongoing character of evental process. If he were to do so, then an ability to account for quasi-advance and possible long-term schism would be necessary. This might especially be the case with respect to philosophy, in which schools of thought are likely never to come into full agreement. That he has avoided the need to account for such quasi-progress or rules for deliberation may be seen to follow from his failure to clarify the philosophical conditions for philosophy.

(b) Post-Evental Consensus

Laudan in his critique of Kuhn's paradigmatic account of scientific revolutions argues that one of Kuhn's most striking failures is his inability to account for the mechanisms of consensus formation. Normal science, that is science that is not revolutionary and does not aim to change the paradigm, just is nothing other than science by consensus. Yet, Kuhn has no conceptual resources to explain it. Laudan writes:

Because [Kuhn] believes that interparadigmatic dialogue is inevitably partial and incomplete, and because he thinks that the partisans of different paradigms subscribe to different methodological standards, Kuhn can readily explain why

many scientific debates are protracted and inconclusive affairs. If both sides are indeed “talking past one another,” if they are judging their theories against different yardsticks, then it is no surprise that they continue to disagree. In sum, Kuhn’s model correctly predicts that dissensus should be a common feature of scientific life. What it cannot explain so readily, if at all, is how—short of sheer exhaustion or political manipulation—scientific disagreements are ever brought to closure. If rival scientists cannot understand one another’s point of view, if they have fundamentally different expectations about what counts as a “good” scientific theory, it seems utterly mysterious that those same scientists should ever (let alone often) reach a point where they eventually agree about which paradigm is acceptable.⁵⁰

Kuhn’s critical fault, for Laudan, is that he is unable to explain the transition from revolutionary science back to normal science, and without that transition the functioning of normal science that Kuhn himself documents so well remains an utter mystery.

The criticism that I aim at Badiou consists in making an analogous point. Because Badiou requires that an event contradict the state, that a successful event must change the transcendental index of a world through the destruction of an established entity, he has made the transition from evental process to normal scientific (and mathematical and logical) research unintelligible. To state it in another way, because he conceives of all kinds of events as having the same structure, he has made disagreement within scientific events too robust. It makes sense to claim that (at least some) political events may transition from their revolutionary state to a normal state by sheer exhaustion or coercion and manipulation. But either of these alternatives

fails to explain why science is not a miracle. Even if most scientists were simply bored of defending evolutionary theory from the attacks by Christian fundamentalists, and the few remaining ones were coerced into accepting their claims, that would not make the world only 6,000 years old. Just like Kuhn, because Badiou has no account of post-evental consensus formation, he cannot explain the well-functioning of scientific agreement.

These two related points, failure to account for evental disagreement and failure to account of post-evental consensus formation, thus make up what I call *The Inexistence Problem*.

8. The Emergence Problem

At this point I must broach what I take to be the most profound problem facing Badiou's project: the problem of emergence.

A way into this problem might be to ask a simple question: why is it that there are only four truth procedures? In *Logics of Worlds* Badiou's answer is the following:

The fact is that today—and on this point things haven't budged since Plato—we know only four types of truths: science (mathematics and physics), love, politics and the arts. We are able to compare this situation to Spinoza's statement concerning the attributes of Substance (the "expressions" of God): without doubt, Spinoza says, there is an infinity of attributes, but we humans [*les hommes*] know only two, thought and extension. For our part, we will say that there are perhaps an infinity of types of truths but we humans know only four.

But we do truly know them. So that even if some typical expressions of the true evade us, our relation to truths is absolute. If, as is appropriate and as has always been done, we call ‘Immortal’ that which attains absolutely to some truth, ‘we,’ of the human species have the power to be Immortals. This power is in no way undermined by the fact that there may be other means, unknown to us, of becoming Immortals (LW 80/71-2).

My response, as one might surmise, is simply that the analogy is weak. Given Spinoza’s ontology, it is difficult to think of other attributes, but the case is not the same with Badiou’s truth procedures. Slavoj Žižek, for example, has on more than one occasion insisted that in order to retain some claim to Marxism, Badiou must accept economics as a truth procedure (this objection, of course, also points to a continuing difficulty with the hard core of Marxism). To insist, as Badiou does, that philosophy has only had four conditions since its Platonic inception seems rather to beg the question than answer it. Furthermore, and this is the capital point, it commits him to an account of humans that flatly contradicts his post-Cantorian account of subjectivity. He here appeals to the conditions of *l’homme* (more properly translated as man than human)⁵¹ as *limiting* access to more than four conditions. One could not have a more patent instance of a relapse into pre-Cantorian thought than this statement. For on this score, to be a human—immortal or otherwise—is to be defined by having access to four and only four truth procedures. To stay with Badiou’s most fundamental insight one must break with this account, and the path opened is that of *emergence*.

To make the stakes of this point sufficiently clear, so I am going to entertain some plausible responses. First, with respect to the existence of other truth procedures, Badiou might

conceivably change his mind. He could, for example, argue that economics is a scientific truth procedure. But with this response the problem would reduce to the as yet unexplained connection among such sciences. While the (category-theoretic) relation of dependence helps him considerably on this point, he is still far from showing the unity of such scientific truth procedures. So far he considers science and mathematics equivalent, but he has in no way broached the role of experimentation and its distinction from mathematical proof. This problem is only compounded if he admits other possible candidates as truth procedures. How precisely are logic, mathematics, physics, chemistry, biology, and (conceivably) economics all the same? Logically, the burden of proof remains his.

Still, the assimilationist response (assimilating other candidates to the established four) has a more obvious set-back than exacerbating the already strained categorization of disciplines usually considered distinct. I note in passing that religion as a truth procedure is axiomatically impossible for Badiou, so it cannot form another possible truth procedure. Still, even granting this decision, one can ask: why is it the case that other human endeavors fail to qualify as truth procedures? Did not Herodotus inaugurate a practice called history? Did Max Weber and Émile Durkheim not found what is now called sociology? Did the Greeks not produce what is called Olympic sport? Why do these examples not count? Or are they, especially in the last case, simply to “low brow” to be considered legitimate truth procedures? My point in suggesting these cases, then, is to show that unlike Spinoza’s case, it is not difficult to think of other possible candidates for truth. This means that it remains unexplained why these four procedures—unless one relapses into a form of finite thought, and one that fails to account for the fact that other alternative can be proposed.

One can take yet a further step here. Even if one shows why these cannot be truth procedures, then one could ask: why, in principle, can there be no other truth procedures? What would be the significance if another came to be? What resources does Badiou provide to think this possibility? These questions gain significance when one considers the historical fact that even the truth procedures Badiou considers *did* come to be at some time. In response to Heidegger's claim that poetry constituted the Greek orientation in thought, Badiou rightly notes that poetry was hardly original to the Greeks and so "testifies against the eventual emergence (*le surgissement événementiel*) of philosophy in Greece" (BE 143/125). One wonders whether Badiou has already overstepped his restriction on philosophy as an eventual process here. Nevertheless, he establishes that it was the emergence of theoretical mathematics (i.e. mathematic governed rigorously by deduction) that established the uniqueness of the Greek event (BE 144/126). This statement benefits from its clear historical accuracy, but simultaneously points to a deficiency in Badiou's thought: eventual procedures come to be—they emerge. This notion of emergence, then, is operative but completely unthematized in his thought. Furthermore, the absence of any reason why there could not be more truth procedures shows that Badiou has opened the way to something more fundamental than events, which he has not addressed. These points concerning both the rigidity and unthematic articulation of eventual change justify one, I think, in calling Badiou's events "mere events."

I pause at this point because that I do not think that Badiou *can* rectify this matter without seriously revising his position. In short, this *de facto* impasse becomes *de juris* when one recognizes that philosophy, as Badiou has conceived it, remains incapable of thinking events. It studies only truths in their compossibility, not their emergence. To accomplish this latter task, it must be the case that eventual truths would condition the emergence of other truths, for it is only

in this way that philosophy could address emergence. Yet, there is no rule for how truths condition truths, since this would restrict their aleatory and precisely evental character. There is thus no way that philosophy could address emergence. What should allow thought to address emergence, then, is at the same time its impasse.

Four points seem apparent now. First, the internal consistency of a truth procedure is lacking: Badiou has no way of specifying the internal coherence of a truth procedure such that he could clearly distinguish it from other truth procedures or establish how the various phenomena of one truth procedure are related to each other. This point is different from the *hard core problem*, because it asks after the unity of diverse activities that Badiou groups under a single truth process (e.g. what is science?), which is distinct from the unity of a given historical practice (e.g. what is the hard core of contemporary mathematics?). Second, there appear to be other possible candidates for truth procedures, and Badiou provides little reason to disqualify these save for historical precedent or whim. Third, even for the truth procedures that Badiou acknowledges to have emerged, he has cannot provide us with the means to say anything of this more fundamental phenomenon of emergence. The best he can do is to say that when these conditions do not exist, neither is philosophy possible. But this response, in turn relies on the supposed fact that there are only four truth procedures. Such a response, then, takes me to my final point: Badiou's insistence on the limits of the human condition in accessing truth procedures returns one to a pre-Cantorian orientation in thought. To avoid this orientation, it must be possible to acknowledge that evental procedures emerge. These four related points constitute *The Emergence Problem*.

9. The Task of Infinite Hermeneutics

I would like to conclude this chapter with a description of the task that remains. That Badiou's project is at least incomplete, possibly intractably so, does not help the cause of hermeneutics in any way.⁵² It only opens the conceptual space necessary to make the claim that hermeneutics may yet be a viable philosophical option, since at least Badiou's alternative stands on no better ground.

In order to make a positive case for hermeneutics, then, the following constraints must be met. First, it must be shown that the critiques of hermeneutics leveled by Badiou and Meillassoux can be met. This means, one must show that hermeneutics can meet (i) *The Ancestral Problem*, (ii) *The Romantic Problem*, (iii) *The Ghostly Presence Problem*, and (iv) *The Regression Problem*. Even meeting this much, however, only shows that hermeneutics is on even ground with Badiou's position. Thus, to make a positive case for hermeneutics, it must *also* be shown that hermeneutics can meet (v) *The Appearance Problem*, (vi) *The Suturing Problem*, (vii) *The Inexistence Problem*, and finally (viii) *The Emergence Problem*. Meeting these eight constraints constitutes the task for philosophical thought today, the way that *Heidegger's Point* can be resolved. It is the task that I hope to fulfill by elaborating an account of infinite hermeneutics, and in doing so I aim recover Heidegger's sense of *Ereignis* after finitude.

Part I

Infinite Hermeneutics

3

Paul Ricoeur's Infinite Hermeneutics

All phenomenological hermeneutics must today begin with its impasse, with its history that at once elevated a regional discipline of Biblical exegesis to first philosophy and at the same time did so through its ties to finitude. It must begin with the burden to twist free from the metaphysics of presence, from that way of understanding reality that has led to a disenchanted world, to a world that has seen not only an increased technologization of earth and land, but also an egregious sundering between those who inhabit the so called “post-industrial” societies and those who must still fight for basic subsistence. It must begin with the recognition that the paradigm of thought that served it so well through the twentieth century has been exhausted, that the only way that it may yet continue is to renew itself as an impossible, infinite hermeneutics.

The aim of the present chapter is to begin that impossible renewal, to start on the long and hard path that will require a total rearticulation of so many hermeneutical theses in order to retain its most central ones. The aim of this chapter is to find resources for philosophical thought that might make this impossible task seem possible yet. My aim, in short, is to find a form of hermeneutical practice, *philosophical* hermeneutical practice, which is not wedded to the finitude of thought as its constitutive ground. I contend that one can find just such a form of hermeneutics in the work of Paul Ricoeur.

To argue that Ricoeur's appropriation of phenomenological hermeneutics transforms it into what may properly be called an infinite hermeneutics is to argue that at the very least it is able to meet the three Badiouian problems, namely *The Ancestral Problem*, *The Romantic Problem*, and *The Ghostly Presence Problem*, as well as the argument that requires one to

address them squarely, namely *The Regression Problem*. There is a provision in this contention, however, and it concerns the extent to which Ricoeur addresses the second criticism, the extent to which he is able to address the new developments in logical, mathematical and scientific reasoning. This might be expected, since it is precisely Ricoeur whom Badiou fingers as *the* representative French thinker who links hermeneutics with religion, and so invariably binds it to the project to finitude (LW 542/516-7). Yet, this is not the point I have in mind. Instead, I argue that Ricoeur's hermeneutics is lacking *only* in specificity, but that it is not, as Badiou would argue, a problem in principle. This point is capital, since it alone will allow me to extend Ricoeur's hermeneutics in the next several chapters.

To demonstrate my contention, to begin this retrieval of Heidegger's work, I am first going to address the relative advantage phenomenological hermeneutics has over Badiou and Meillassoux's projects by responding to *The Appearance Problem*. I take up this tactic not only because I shall thus be able to present some good news first, but also because it will also allow me to show how Ricoeur meets the challenge of *The Regression Problem* directly afterwards. This tactic leaves the most serious criticisms yet unaddressed. Because of the intricacy of Ricoeur's hermeneutics, I shall have to broach them all at one go. Additionally, I note that in order to assess the extent of the provision for *The Romantic Problem* I am going to enlist the help of Don Ihde's various efforts to extend Ricoeur's hermeneutics into the philosophy of science and technology. I conclude, finally, with an account of what remains to be done, which, to anticipate, will require the development of a third model for hermeneutics.

1. Relative Advantages

From Ricoeur's early work on the philosophy of the will to his late work on memory, phenomenology always played a critical role in his thought. Quite famously in his essay "Phenomenology and Hermeneutics" Ricoeur states it thus: "*phenomenology remains the unsurpassable presupposition of hermeneutics,*" and equally "phenomenology cannot constitute itself without a *hermeneutical presupposition*" (FTA 44/26). The form of phenomenology he has in mind is that developed by Husserl in his idealist period, specifically as expressed in the "*Nachwort*" to *Ideas*.¹ The goals for the present, then, are to understand the precise relation phenomenology has to hermeneutics, the way in which this use of phenomenology can avoid *The Appearance Problem*, and finally, how this use does not commit Ricoeur to the difficulties of *The Regression Problem*.

(a) *Reflective Philosophy*

To begin it will be helpful to consider the role that Jean Nabert's reflective philosophy plays in Ricoeur's thought, for it is here that one finds the need both for hermeneutics and phenomenology.

In his essay "Nabert on Act and Sign," Ricoeur establishes the way in which his own philosophical position continues from the Kantian critical project. Unlike Heidegger, who re-interpreted the status of the phenomenon in such a way that recourse to the *Critique of Practical Reason* proved unnecessary to be put in contact with the things themselves, the reflective tradition retains the Neo-Kantian problematic of the relation of knowledge and freedom. For Nabert, however, this relation is modified. He argues that the operations of active consciousness are not reducible to knowing acts (CI 212/212). This poses a problem similar to Spinoza,

Nietzsche, Marx, or Freud, namely that the representation of conscious acts is not the same as the acts themselves. Here one sees the integral role of the masters of suspicion for Ricoeur, for without them one might be tempted to think, as did Descartes, that one's access to the "I think" of consciousness is immediate. The freedom of conscious acts, then, is guaranteed by their distinction from their representation, so that Nabert has no need for the Kantian antinomy between noumenal freedom and empirical causality. Still, he does have to specify their relation. This he does by altering the relation of acts to their representative signs.

Unlike Kant, for whom the categories of consciousness exhaust the acts of predicative knowing, Nabert holds that the discrepancy between act and sign poses a different task for transcendental reflection. If Kant was forced to bring the categories together with the pure forms of intuition by a transcendental deduction, Nabert instead sees an infinite task of recovery (CI 215/215). The passage from conscious act to its representative sign, however, is not an obstacle that would somehow impede one's ability to know conscious act. One does not here look through rose colored glasses. Rather, the signs are the very way by which one to knows consciousness at all; they set the determinate conditions for such knowing. Like Hegel, the reflective tradition of philosophy holds that the objectification of consciousness in something, whether in a sign, text, work of labor, or institution, is what completes (*aufhebet*) the act. One cannot know the act save through a traversal of its objectification in signs.

The step to hermeneutics from this insight into the positive role for objectification is quite small. What is required to recover the acts of consciousness is a general theory of signs, which is precisely what hermeneutics, understood in the disciplines of philology and Biblical exegesis, means (FTA 84/54). Still, understood in this sense, hermeneutics remains a regional discipline

and is not adequate to the needs of philosophic reflection. There are, one may say, two steps that make this regional discipline adequate to the philosophic requirements.

The first of these is Heidegger's ontological de-regionalization of hermeneutics. The critical move here is away from the epistemological problem of Romantic hermeneutics, found in Friedrich Schleiermacher and Wilhelm Dilthey, to an ontology of existence. Both Schleiermacher and Dilthey held that the aim of hermeneutics is to recover the psychological intention of the author; what separates them is the latter's sensitivity to the development of scientific positivism (FTA 91/59). In order to retain the claim to scientificity, then, Dilthey distinguished between explanation, which is characteristic of science, and understanding, which became the proper domain of the *Geisteswissenschaften*. Because even Dilthey remained committed to the Romantic goal of interpreting the genius of the author, he faced the insoluble problem of making this subjective intention objective (FTA 94/61). Heidegger's role, understood in this line, is not to solve this problem but to dissolve it.

The Heideggerian dissolution of the problem was achieved by translating the critical, epistemological problem Dilthey faced, namely "How can we know?," into the problem for fundamental ontology, namely "What is the mode of being of that being who exists only in understanding" (FTA 97/64)? Hermeneutic interpretation, after this translation, becomes a matter of explication (*Auslegung*) for what Dasein already pre-comprehends. Since this pre-comprehension is prior to the linguistic expressions used by the sciences, namely apophatic assertion (*Aussage*), hermeneutics achieves the generality of a universal philosophic discipline (BT §34).

The second step is accomplished by recourse to phenomenology. For it is clear that while Heidegger denies the idealistic account of phenomenology Husserl advances between (roughly)

his 1907 lectures *Thing and Space* and *The Crisis of the European Sciences*, he equally could not have developed his account of hermeneutics without the work of his mentor. This debt, Ricoeur argues, is three-fold.² First, hermeneutics only is philosophical when it addresses phenomenological experience as meaningful (FTA 61/38). In short, the hermeneutic choice in favor of meaning is equally the choice in favor of experience as meaningful. The two are not separable. Second, the phenomenological *epochē*, which gives access to lived experience as distinct from the experience of the natural attitude, introduces the critical function of hermeneutic distancing. “The *epochē*,” Ricoeur writes “is the virtual event, the imaginary act that inaugurates the whole game by which we exchange signs for things and signs for other signs” (FTA 64/40). Finally, and Ricoeur notes that this point is the most critical, hermeneutics appropriates the phenomenological insight that linguistic meaning is derivative (FTA 67/42). It is not enough to understand and analyze linguistic signs. One must also complete the return route to the solid ground of existence.

Ricoeur’s use of the reflective tradition thus begins by accepting the positive role for the objectification of conscious acts in signs. This sets the hermeneutic task of recovering those acts through by a linguistic traversal. Finally, conscious acts, understood through Husserl’s insight into the intentional character of consciousness, are able to be recovered under the rubric of an expanded meaningful experience. *The reflective tradition thus serves to join both hermeneutics and phenomenology.*

(b) Phenomenology in Hermeneutics

What has yet to be broached is how this reflective use of the phenomenological tradition can address *The Appearance Problem*, how it can countenance the existence of first-person consciousness without falsely reducing it to third-person states of affairs. The key to addressing this matter is the way in which Ricoeur critically appropriates phenomenology: while he is critical of Husserl's idealist pretensions, he nevertheless retains a role for positive first-person descriptions.

Ricoeur accomplishes this recovery through a five-point critique of phenomenological idealism. First, in opposition to Husserl's ideal of scientificity, which hoped to found all the positive sciences, he proposes the hermeneutic account of belonging (FTA 49/29). It is one's belonging to a meaningful world or tradition that undercuts the project of founding the sciences in any absolute way. Second, Ricoeur opposes the phenomenological account of intuition (*Wesenerschauung*) to understanding mediated by interpretation (FTA 51/31). Phenomenological hermeneutics is thus no longer a discipline primarily of seeing, rather, it becomes one of reflection on the meanings expressed in experience. Third, the priority of phenomenological subjectivity is opposed to the ruses of self-consciousness (FTA 54/33). As noted above, Ricoeur makes use of the masters of suspicion, namely Nietzsche, Marx and Freud, precisely to ensure that philosophers do not fall back into the trap of presuming that awareness of self, the immanent-transcendence of phenomenology, is more secure than awareness of objects or Others. Both noesis and noema are recovered only through the hermeneutic traversal of signs. Fourth, capitalizing on the insight of the third point, Ricoeur opposes the status of the transcendental subject to the theory of the text (FTA 57/35). While the former remained privileged in idealist phenomenology, Ricoeur instead proposes that the task of the hermeneutic philosopher is to recover the world of existential possibilities provided by a text. This means

that, fifth and finally, hermeneutics opposes the phenomenological notion of self-responsibility as a first ethical category (FTA 59/37). Rather, the subject itself becomes a task to be achieved, so that one's ethical obligation consists in both the traversal of signs and the openness to critique through opposed interpretations.

While there are five critical differences between phenomenological hermeneutics and idealist phenomenology, what Ricoeur is clear to retain is the following. First, phenomenological experience, while no longer something that is given after bracketing and reduction, remains an unsurpassable presupposition for any hermeneutics. Particularly, I note that Ricoeur expands this notion to include the second-order reference of symbolic signs and fictional texts. This means, second, that while first-person descriptions remain a critical operation of phenomenological hermeneutics, one must not be tempted to think that these descriptions can be complete on their own. Rather, as Ricoeur himself demonstrates in *Memory, History and Forgetting*, these descriptions must afterwards be subject to any pertinent suspicion or critique available. In the latter case, for example, he accomplishes this through an engagement with historical disciplines themselves as well as Michel Foucault's genealogical history of discursive formations.

The consequence of this integration of phenomenology and hermeneutics is that *The Appearance Problem* is resolved. Unlike Badiou and Meillassoux, phenomenological hermeneutics³ is not committed to reducing first-person descriptions to third-person descriptions. Instead, each has its own sphere of validity. Their relation, clearly, is a matter that cannot but be solved save on a case by case level—if they can be solved at all. Perhaps the mind-body problem is itself false, as Ricoeur suggests in dialogue with the neurobiologist Jean-Pierre Changeaux.³ What one has are two discourses with separate and equally legitimate

intelligibilities. That they can be united in an ethical discourse is not to reduce one to the other, but to find a third semantic plane in which the considerations of the other discourses can be brought to bear.

A second consequence of this integration allows one to address *The Regression Problem*, since it is practically Ricoeur's own argument. Because the difference is significant, however, I want to pause to attend to it with some care.

(c) *The Regression Problem*

In chapter one I introduced *The Regression Problem* as a kind of necessary lemma for the three Badiouian critiques to hit their mark, namely finite thought (and especially Heideggerian hermeneutics). For anyone familiar with Ricoeur's later work, it would have been obvious that this was quite close to what Ricoeur himself writes. Near the end of his essay "The Task of Hermeneutics" he asks: "At this point, it will no doubt be asked: why not stop here and simply proclaim ourselves Heideggerian" (FTA 104/69)? His response is that the Diltheyan aporia of understanding

is not resolved but merely displaced elsewhere and thereby aggravated. It is no longer between two modalities of knowing *within* epistemology but *between* ontology and epistemology taken as a whole. With Heidegger's philosophy, we are always engaged in going back to the foundations, but we are left incapable of beginning the movement of return that would lead from the fundamental ontology

to the properly epistemological question of the status of the *human sciences* (FTA 104-5/69 emphasis added).

This critique remains quite close to that given in *The Conflict of Interpretations* given nearly twenty years earlier. There he writes that Heidegger “gives us no way to show in what sense historical understanding, properly speaking, is derived from this primordial understanding” (CI 14/10). I note, however, that the qualification, with respect to the *human sciences*, is not present. In his earlier work, then, he took this argument to apply to all forms of understanding, and not merely that kind of understanding operative in the investigation of the human sciences. What is one to make of this difference?

I believe two points are in order. The first is clearly one that addresses the status of Ricoeur’s own development. In outlining the task for hermeneutics in *From Text to Action*, Ricoeur has explicitly taken up the legacy from Schleiermacher through Gadamer. This is the course of de-regionalization seen above, and it culminates in his theory of the text. In *The Conflict of Interpretations*, however, Ricoeur was concerned with hermeneutics primarily in its Heideggerian dimension, and its extension by way of the polysemy of symbolism. Heidegger’s hermeneutics was general—so general in fact that he was not afraid to claim that it was prior even to logic (BT §§6-7). Gadamer’s concern, by contrast, was restricted to the human sciences. Because Ricoeur was concerned in his later work with Gadamer’s hermeneutics, the scope of his criticism was restricted merely to the human sciences. This developmental inconsistency, then, was one of the primary reasons why I was forced earlier to provide my own argument as *The Regression Problem*. Still, it remains clear that Ricoeur’s formulation of hermeneutics, especially as he develops it in its broadest context in *The Conflict of Interpretations*, was meant to address all forms of understanding. This means, in short, that a long road is required to

address the hard sciences as well as the human ones. No sort of dodge is possible in the way that Gabriel suggests, and this is just another way of stating that Ricoeur affirms the conclusion of *The Regression Problem*.

The second point is that it remains uncertain whether Ricoeur's final development of hermeneutics retains the scope required to address the generality of Badiou's and Meillassoux's criticisms. The model of the text clearly allows Ricoeur to address problems that Gadamer was unable to do, such as how narrative may be used as a response to the problems of identity, or how in conjunction with a phenomenology of memory and forgetting it may be used to articulate an account of human historical consciousness. Nevertheless, one must wonder whether this model will allow one to address science, mathematics and logic. These concerns bring one to the need for the provision of which I wrote above in the introduction to the chapter. In order to address it, I want to prepare the ground by reviewing the resources available in Ricoeur's thought both early and late.

2. Ricoeur's Infinite Hermeneutics

The heart of what Badiou means by the Cantorian Revolution, what he means by infinite thought, concerns the role of positive intervention that follows as part of an event. Like Heidegger he maintains that there must be (a) an in-existent, a point of disruption in the stable order of being or appearance that allows for the possibility of events. This point has the structure of an included exclusion, and so functions like a problematic concept in Kantian critical philosophy. Also like Heidegger he maintains that (b) events themselves must be radical and unpredictable breaks in that order of being, in the *Sein* of *seiendes* or what Badiou calls "nature."

What he argues is nowhere to be found in Heidegger's thought (or Hegel's or any other philosopher of finitude's thought) is a third part that (c) requires intervention and consequences that maintain this radical novelty in the order of being. From Badiou's perspective, Heidegger got it wrong when he turned from his earlier and more anthropological approach to a non-subject centered goal. For what is needed to overcome the metaphysics of presence, what is needed to twist free from the legacy of *Platonism* is a positive account for novelty. And this account above all will require an integral role for a subject, a way that a subject may intervene to bring about these sorts of radical breaks. Without too much oversimplification, one may argue that there are three critical aspects to this positive moment in Badiou's thought, to the infinite aspect of his thought: (i) a wager on the existence of an event, (ii) a process of intervention, and (iii) a possible worldly transformation, which Badiou calls the consequences of an event.

In order to demonstrate that Ricoeur's hermeneutics enables philosophical thought to function in a similar way, I must establish that beyond his appropriation of Heideggerian hermeneutics, that is beyond his appropriation of (a) and (b) of Heidegger's thought that I reviewed above, Ricoeur's thought also exhibits a positive moment, part (c) of Badiou's account of events, in all of its three aspects. Only in this way will I have any legitimate claim to have recovered an infinite hermeneutics from Ricoeur's work.⁴

My key argument here is the following: *Ricoeur's appropriation of Nabert's reflective philosophy allows him to transform the hermeneutic circle into an infinite hermeneutics.* The two corollaries that follow from this argument answer the criticisms of Badiou and Meillassoux respectively. *First corollary:* this structural transformation of the hermeneutic circle cannot be sustained without an account of wagers, intervention, and worldly transformation. *Second corollary:* the structural transformation of the hermeneutic circle replaces the correlation

between thought and being with the question and the questioned. Since this latter correlation avoids *The Ancestral Problem*, so too does Ricoeur's hermeneutics.

Though this appears to be a simple task, the development Ricoeur's thought undergoes will require us to address the both corollaries at the same time and so to address both *The Ghostly Presence Problem* and *The Ancestral Problem* simultaneously (or nearly so). To make this complex task somewhat easier, one may analyze Ricoeur's thought into two stages: Ricoeur I and Ricoeur II. By this division I mean to suggest that while there was a fundamental transformation between the two stages in Ricoeur's work, there nevertheless remains a serious and profound continuity. For Ricoeur the continuity concerns the reflective transformation of the hermeneutic circle; the discontinuity concerns his shift from the model of symbolism to the model of the text.

(a) *Ricoeur I*

I begin with Ricoeur's transformation of the hermeneutic circle, which finds its origin in Heidegger. As Ricoeur sees it, Heidegger's displacement of the hermeneutic problem onto the domain of ontology inaugurates a "short road" into hermeneutics by asking after the being who asks after the meaning of being, namely Dasein (CI 14/11). Famously, Ricoeur considers Heidegger's path a short road, as opposed to his own long traversal through all the discourses of the sciences, because Heidegger's hermeneutics of the reduction seeks to dig beneath the ontic disciplines. The Dasein-analytic of *Being and Time*, as well as Heidegger's later meditations on *Ereignis* or the clearing, are meant to articulate the aim of his inquiry without "detouring" through what logicians, mathematicians, and scientists actually take reality to consist in.

Because Ricoeur is committed to the thesis of *The Regression Problem*, however, he considers this long detour to be necessary for any hermeneutical inquiry, and in his early work he begins with an analysis of symbolism in dialogue with the structuralist “suspicion” of linguistic meaning (CI 14-5/11).

The consequences of this substitution are three-fold. First, it no longer remains possible to divorce truth from the methods of the sciences. Instead one must approach each on its own plane and not seek to ground their truth in something deeper. Since the different methods of interpretation for phenomena give rise to a conflict of interpretations, the highest task for hermeneutics, then, “would be a true (*véritable*) arbitration among the absolutist claims of each of the interpretations” (CI 18-9/15). In short, the first consequence changes the meaning of philosophic ground. While for Heidegger, as he says in his *Introduction to Metaphysics*, philosophy is interested in the earth in which the roots of the tree of knowledge are rooted, for Ricoeur hermeneutics is *conditioned by* these and other truths.⁵ Here one sees a proximity to Badiou’s own account of philosophy as a forming of the co-possibility of truths into a Truth.

Second, the interpretation of hermeneutics cannot remain simply a matter of explicating (*Auslegung*) either what Dasein pre-comprehends, or the belonging together of man and being. Instead, interpretation is required by the existence of “symbols,” by which Ricoeur intends “*any structure of signification in which a direct, primary, literal meaning designates, in addition, another meaning which is indirect, secondary and figurative and which can be apprehended only through the first*” (CI 16/12-3). Since conscious acts can only be recovered through their symbols, hermeneutics is the philosophic discipline that interprets them.

Finally, I note that the sense of human finitude changes for Ricoeur. Heidegger transforms Kantian receptivity into an original correlation between what appears and thought, or

later the co-belonging of Dasein and *Sein*. It is this correlationism that marks Heidegger as a target of Meillassoux's criticism. For Ricoeur, by contrast, *human finitude consists in the cogito's failure to coincide with itself*. Here the influence of Nabert is most critical: the distinction between conscious act and representation means that we humans cannot know who we are directly. This is why Ricoeur writes that the truth of the *cogito* is as invincible as it is empty (CI 21/17). It is only through the cogito's objectification in signs and acts that it becomes full, and here one simultaneously requires the masters of suspicion to divest one of one's original naïveté. Only in that way may one gain a second naïveté after taking the long detour through all relevant discourses. It is this sense of finitude that is at stake in *Fallible Man*, and which continues to be at stake in his late work *The Course of Recognition*.

Yet, to meet Badiou's *Ghostly Presence Problem*, avoiding a fundamental unit only accomplishes half of the task. Ricoeur's hermeneutics must additionally provide a positive account of intervention, in all three of the aspects specified, and it must do so without syncretism. This is to say, it will not do simply to find a passage in Ricoeur's voluminous *oeuvre* that would seem to conform to this demand. Rather, it must be shown that this account of intervention follows directly from the transformation of the hermeneutic circle. My argument is that this positive account follows as a first corollary from the transformation of the hermeneutic circle, which one finds in the conclusion of *The Symbolism of Evil*. It thus meets the strict requirements of historical exegesis. In order to demonstrate how this is so, I need to collect a number of points of proximity between Ricoeur's thought and Badiou's that will make the argument intelligible.

It seems to me that one could collect four such proximities, retaining the fifth as the first corollary. First, then, both Ricoeur and Badiou hold that philosophy is conditioned by truths that

are not its own. Second, both hold to an ineffable beginning: the inconsistent multiplicity or conscious acts prior to their representation. In each case, third, one is left only with what can be said (or better: written) about this ineffable beginning. Here, the capital difference seems to be that Badiou holds that what can be said is *univocally* written through mathematical symbols, while Ricoeur holds that what can be said is through the *polysemy* found in symbols. I note in passing, however, that the “meaning” of any formal theory is established only through an isomorphism, and that it is in the break-down of this isomorphism (in its ability to match reality) that much of contemporary research is dedicated. To give just one well-known example, the (human) significance of Gödel’s incompleteness theorems, though widely accepted, is hardly established. Some hold that they have no extra-mathematical application, others that they bear directly on the character of the human mind, others that if applied to the provability interpretation of modal operators establish suggestive limits to any proof, and others still that they suggest one ought to accept the existence of dialetheias.⁶ In brief, Badiou’s univocity obtains only under strict conditions that he likely needs to abandon in order to give the developmental character of mathematics its due consideration. In any case, for both, the fourth task emerges from the discrepancy of these symbols. Ontologically, for Badiou, this discrepancy results from the distinction of membership and inclusion, while for Ricoeur it results from the conflict of interpretations. These proximities bring one, then, to the fifth, which is the first corollary concerning intervention.

In the conclusion to *The Symbolism of Evil* Ricoeur outlines a three stage process for the recovery of symbols. The first of these is simply the phenomenological stage, occasioned by the *epochē*, which attempts to understand the relation of symbols to each other. Truth, here, is a matter of simple coherence among the symbols themselves.⁷ Yet, one cannot remain at this

stage. One must ask the additional question of truth in the more robust sense: “what do *I* make of these symbolic meanings, these hierophanies?”⁸ This question cannot be asked until one leaves the first stage of comparativism, which now serves only as an intermediary stage. The second stage, then, is the stage of the hermeneutic circle, which Ricoeur bluntly states as: “We must understand in order to believe, but we must believe in order to understand.”⁹ One has entered it because *and* when one admits that as an exegete one approaches the symbols from a certain point of view, that is to say, when one proclaims what one believe in so that one may understand. Still, this circle does not become properly philosophic until it is transformed by a *wager*.¹⁰ The philosopher cannot remain at the level of neutralized belief, but must return to the ontological domain of existence. This final stage, Ricoeur notes, has three parts.

[i] I wager that I shall have a better understanding of man and of the bond between the being of man and the being of all beings if I follow the *indication* of symbolic thought. That wager then becomes [ii] the task of *verifying* my wager and saturating it, so to speak, with intelligibility. In return, the task [iii] transforms my wager: in betting *on* the significance of the symbolic world, I bet at the same time *that* my wager will be restored to me in the power of reflection, in the element of coherent discourse.¹¹

The components of philosophical hermeneutics, then, correspond quite closely to Badiou’s own account of wager, intervention, transformation. This establishes the *first corollary*: that philosophical hermeneutics cannot be sustained without a wager, verification, and transformation.

The *second corollary*, I noted, concedes to Meillassoux that hermeneutics *does* have a correlation at its heart, but that it is not that of thought and being. For Heidegger, the hermeneutic circle becomes a living circle rather than a vicious circle because he transposes the epistemological question onto the plane of fundamental ontology. Yet, in a move that affirms Heidegger's phenomenology of inquiry in §2 of *Being and Time*, Ricoeur suggests that hermeneutics can make its circle a stimulating one by affirming the status of inquiry itself. Here, he turns to Bultmann's *Glauben und Verstehen* to specify the character of belief that precedes understanding. "All understanding," Ricoeur writes quoting Bultmann, "like all interpretation, is ... continually oriented by the manner of posing the question and by what it aims at [by its *Woraufhin*]. Consequently, it is never without presuppositions; that is to say, it is always directed by a prior understanding of the thing about which it interrogates the text."¹² Bultmann's insistence on "this coincidence with the *Woraufhin*, with the thing about which the text speaks," Ricoeur notes, ensures that Dilthey's Romantic aim of coincidence between interpreter and genius cannot be taken up. Yet, it also ensures that the hermeneutic circle can only be stimulating *through inquiry*. In short, Ricoeur's hermeneutic circle, the circle of recovery of self through exteriorization in representative symbols and texts, is a hermeneutics of inquiry.

One may approach the *second corollary* through a question. Why does Ricoeur focus on Bultmann and not Heidegger? The answer is that Ricoeur was too careful a reader to make that mistake. For Heidegger in *Being and Time*, one will recall, *das Woraufhin* served as the upon which for Being's projection. It is, in short, *die Sache* of Heidegger's thought. To affirm Heidegger's account of inquiry would require Ricoeur to return to the problematic of fundamental ontology from which he broke. The transformation of the hermeneutic circle thus establishes an alternative correlation: *the correlation between the question and that questioned*.

In order for this new correlation to achieve the status of infinite thought, a supposition underwrites this correlation: *that there is nothing which we cannot at least question*. In response to Meillassoux, I note that there is a crucial difference between a correlation that affirms some (pre-)understanding that *P* and a thought that asks a question about *P*. While the former does affirm a positive unity, a horizon of precomprehension as *given*, the latter posits such a unity only as a task—one that is to be recovered only through the three-fold process described above, and which closely parallels Badiou's own account. Thus, Ricoeur does not hold that one cannot access the absolute, only that one cannot access it *totally*. By denying that total access is possible I mean that our knowledge is defeasible for any number of reasons. Our methods of dating might change, such that the date of some prehistoric fossil is revised. Perhaps scientists will develop some radically circular or at least non-linear notion of time, such that the significant of statements concerning the prior existence of a fossil might change. Perhaps there will be developments in geological understanding, such that what scientists now understand a fossil to be changes. Any of these possibilities, and others, might occur, and it is for this reason that the hermeneut affirms the revisability of such scientific statements, though she also affirms the current superiority of these explanations to others (such as Christian fundamentalism). Since this revisability is only what Meillassoux himself holds, I think I am justified in arguing that Ricoeur's reformulation of hermeneutics meets *The Ancestral Problem*.¹³

At this point two tasks remain. The first concerns a critical difference between Badiou and Ricoeur's accounts of positive intervention: Ricoeur's account in this context remains confined to a trajectory of *self-recovery*, and is not directed, as are Badiou's truth procedures, to *worldly* transformation. This difference is diminished through Ricoeur's later model of the text, which translates directly into a model for action as well as ethical and political relations. In

order to make good on my argument that Ricoeur's thought does in fact have a positive account of intervention, I shall thus have to follow it through to his later elaborations in which this immediate textual deficiency is remedied. Second, I must also point out that I have not as yet shown how Ricoeur's thought could address *The Romantic Problem*. While one can see the groundwork for the response here, a detailed account on how this translates into a hermeneutics of science is required to show that I have done more than hand wave on this score.

(b) Ricoeur II

With respect to Ricoeur's later thought, what I want to show is that the model of the text *extends* but does not revise the infinite hermeneutics he develops in his early work on symbolism. To begin with, then, one might want to know: what occasioned this development?

Already in *The Conflict of Interpretation* one can find the program for development suggested. In order to address the surplus of meaning that symbols provide, Ricoeur argues that it is necessary to develop a complementary criteriology that "would have the task of determining the semantic constitution of related forms, such as metaphor, allegory, and simile" (CI 17/13-4). I suggest that it is through the execution of just this task that Ricoeur was forced to develop his position.

In turning his attention to metaphor Ricoeur's attention shifts in more than one way. One of these shifts was from the level of the signs, which is the unit of analysis Ricoeur uses in addressing symbols, to the level of the sentence, which is unit of analysis Ricoeur argues is necessary to understand a metaphor. Still, this shift was not the most critical aspect of this focus. Ricoeur quite clearly outlines the limitations, or better, the costs of undertaking linguistic

analysis *only* under the guidance of structuralism. He argues that while structuralism retains validity in its own domain, it simply presumes that all the levels of language are homologous (CI 82/81). This is why structuralism, even at this early point in Ricoeur's thought, is only an intermediary step in the hermeneutic arc of the recovery of meaning.

What makes his study on metaphor a break-through *is the novelty that emerges from a metaphor*. Famously for Ricoeur, a live metaphor (which French title *La métaphore vive* stresses) emerges from the ruin of the literal non-sense of a sentence. For example, the Shakespearean metaphor that "time is a beggar" makes no sense literally. It is a kind of category error read this way. Through the act of reading, then, one is forced to grasp the second-order reference of the sentence. "Time is a beggar" then may be taken to mean roughly that time is always lacking, or that there is never enough of time.¹⁴

Why is this novel sense so critical for Ricoeur? There are, I think, two principle reasons. First, in order to explain it Ricoeur must widen his account of the philosophy of language. In concert with his argument that hermeneutical inquiry must always take the long road through the relevant scientific discourses, in order to elaborate an account of metaphor he takes up Émile Benveniste's work, which approaches language as discourse.¹⁵ This account, which he adapts to his own work, discourse has two poles: event and meaning. The event of discourse, which is (i) temporal, (ii) indicates a speaker by "shifters" such as personal pronouns, (iii) contextualized in a world, and (iv) is addressed to someone is dialectically related to meaning, which expresses the intentionality of language (FTA 116-8/77-8). Since a live metaphor lacks any status in an established language it is an event of discourse.¹⁶ Through its second-order reference, however, it is connected to meaning. The second consequence is that this second-order reference prepares the way for the world of the text as meaningful.

A “text” Ricoeur writes, “is any discourse fixed by writing” (FTA 154/106). This fixation, while it shelters the occurrence of a discursive act from destruction, fundamentally transforms its meaning. Critically, textual meaning and the intention of the author are now separated. This distancing (*Verfremdung*), however, has a positive rather than a negative significance, since the decontextualization of the world of the discursive act allows for the recontextualization of the text by the act of reading (FTA 124-5/83). The two aspects of this transformation, namely distancing and reading, each entail crucial changes for the status of interpretation in hermeneutics.

To begin, distancing requires that discourse become understood as a work. This means that the discourse itself is of a size larger than a sentence though still finite in length, that it has a codification called a literary genre, and finally that it has a unique configuration, which could be called its style (FTA 120/80). As an object of praxis, the work thus mediates between the discursive act and meaning. Its style draws both these aspects together, and it is here that one could say the author is born as distinct from the speaker. Finally, and most importantly, the objectification of discourse in a work requires the Diltheyan opposition between “understanding” and “explanation” to be overcome in favor of their dialectical relation. Now explanation, opened by the work of structuralism, becomes the path to understanding. Interpretation, in short, “is the reply to the fundamental distancing constituted by the objectification of man in works of discourse” (FTA 124/83).

The act of reading itself has two sides. The first of these is the world of the text. While it is possible, as structural analysis requires, to suspend the text and treat it as worldless and authorless, one can also “lift the suspense and fulfill the text in present speech” (FTA 170/118). When one does the latter, one is opened to another sort of distancing: the world of the text.

This world, Ricoeur is clear, is the world of existential possibilities, not a world of facts, and so has the status of a second-order reference like that of metaphor. To let oneself be addressed by this world is to become a reader, in which one appropriates these possibilities and so is refigured. Here, Ricoeur reaffirms the infinity of the hermeneutic task found in the model of symbolism. “Henceforth,” he writes, “to understand is *to understand oneself in front of the text*. It is not a question of imposing upon the text our finite capacity for understanding, but of exposing ourselves to the text and receiving from it an enlarged self, which would be the proposed existence corresponding in the most suitable way to the world proposed” (FTA 130/88). The result of this move is that Ricoeur no longer needs to uphold Gadamer’s alternative between the truth of the human sciences and method, which loses the ontological density of reality. Instead, method becomes the path to truth.

What is the difference this model suggests for Ricoeur’s early account of the hermeneutic circle? The answer, I propose, is that it merely *extends* that account by elaborating another (quite fruitful) means of transformation (part iii above). One now accomplishes this transformation through the act of reading. Nothing in this account goes back on the status of wagers. Indeed, Ricoeur’s texts become quite explicit now about his guiding hypotheses. Similarly, verification remains a matter of making good on these wagers through some fruitful result. Finally, the hermeneutic circle of inquiry in this case still only gains a provisional or defeasible conclusion after its long detour. The fundamental correlation at stake is still that of questioning and the questioned, though now Ricoeur is able to adapt it to the political concerns of ideology and utopia. Thus, all the central components that made Ricoeur’s original hermeneutic circle an infinite one remain in place. They are only enriched in their application, in their extension by this new model.

(c) *Worldly Intervention*

At this point I would like to address two possible objections to the foregoing construal of Ricoeur's hermeneutics. The first concerns the point, raised above, that the trajectory of Ricoeurian transformation is only a trajectory that concerns the subject. The second point, which I shall address below, concerns lingering doubts that Ricoeur's account of events is not robust enough.

To defend Ricoeur on the first point, I demonstrate how the model of the text allows Ricoeur to address transformation in the world in a way that is more robust than even Badiou's account. First, I would like to note that Ricoeur's account of reading introduces a self-reflexive moment that opens the space for ideological critique (FTA 403/297). This moment of reflection takes a double role in Ricoeur's later thought. The first concerns the way in which he establishes a dialectical mediation between ideological critique and utopian aspirations. The second concerns the struggle for recognition which culminates in the aspiration for mutual recognition.¹⁷ Next, Ricoeur's model of the text enables him to address the Anglo-American debates on action theory. The text can serve as a model for meaningful action, and thus allows Ricoeur to address ethical and political transformation. Thus, to recover myself means that I must recover the Other as well—this is, of course, the major thesis of *Oneself as Another*. One cannot live with the Other save through just institutions, and so while the project appears introspectively directed, it is not.

A comparison with Badiou's account of ethics is noteworthy here. Despite his numerous developments since the publication of *Logics of Worlds*, Badiou has not yet revised his statement

on ethics, which he developed only after *Being and Event*. In his little work *Ethics*, Badiou argues that ethics consists in a central maxim: “*Continuer!*”¹⁸ This is to say, ethics for Badiou consists in remaining faithful to an event and ensuring that one does not betray it. One may say that there are virtues to this subjective procedure, namely faith, hope, and charity, which he articulates by his reading of St. Paul.¹⁹ Additionally, Badiou argues that in order for a sequence to qualify as an evental truth it must be open to all, it must be universal, otherwise it is a mere simulacrum.²⁰ An example of such a simulacrum would be the Nazi movement, which was explicitly not open to Jews. Yet rather infamously, Badiou’s account of ethics prescind from any discussion of the content of events, especially political events. The criterion for universality is a formal one, which he explains more fully in terms of his ontology. Furthermore, he argues against any possibility of human dignity or human rights. Humans who are not engaged in events, he argues, are mere animals who might yet become subjects.²¹ As a result, I can really see no reason why such egregious actions as rape or child abuse would be wrong on Badiou’s reckoning.²²

One may argue that it is unfair to criticize Badiou in this way since he has not yet produced a sustained account of ethics, but only an account of what Anthony Appiah has called the “ethics of identity.”²³ That is to say, Badiou has not sought to elaborate a full theory of morality, only a new account of what philosophers enamored with finitude have called “authenticity.”

While this may very well be the case, what I want to note here is the way in which Ricoeur’s account of intervention *requires* a critical moment of both moral and ethical deliberation. If ethics for Badiou is simply the empty account of personal virtues that enables one to continue in a truth procedure, Ricoeur’s ethics is necessarily substantive and normative.

My response to the difference between Ricoeur and Badiou on intervention, my response to the objection that Ricoeur only has an account of intervention that is subjective navel gazing, while Badiou has an account of worldly intervention, is to stand the objection on its head. *It is Badiou who fails, even after Logics of Worlds, to direct his truth procedures to the world, and so remains in a solipsistic subjectivity of eventual intervention, while it is Ricoeur alone who recognizes the richness of human relations and political institutions.* I argue this because any full account of worldly intervention must recognize the intricacy of human relations and human institutions, as well as a normative account of how those relations and institutions are to be understood. Because Badiou has failed so far to provide any such account, it is he, and not Ricoeur, who has yet to produce a full account of worldly intervention.

To meet this response Badiou, and his supporters, must show that *existing* political institutions have a *positive* role to play in our world, and are not simply something that one rebels against. On this point, it is instructive to note that Badiou's paradigms of political intervention, namely Spartacus and the Paris Commune, are only reactionary. There is little institutional political legacy to speak of in either case. What one finds in this difference between Badiou and Ricoeur, then, is that it is Badiou who faces the charge of *political nihilism* by prohibiting any affirmation of existing political institutions. It shows, finally, that *Logics of Worlds* cannot be said to have succeeded in its most critical goal: to enrich worldly relations. Despite the overwhelming complexity of relational descriptions afforded by category theory, Badiou made almost no significant use of them. Subjects still exist *in opposition* to a world, and without a positive role for the objectification of the human spirit, Badiou will never succeed in the task of providing an account of eventual intervention adequate to *our* and not some hypothetical world.

(d) *In-Stabilism: Ricoeurian Metaphysics*

The grounds for the second objection to the present construal of Ricoeurian hermeneutics are to be found in *Conditions*. In that text Badiou argues that a primary indication of the finitism of hermeneutics is its inability to break with the correlation of truth and meaning as follows:

I propose to call ‘religion’ everything that presupposes that there is a continuity between truths and the circulation of meaning. We can thus say: philosophy is what, against every hermeneutics, against the religious law of meaning, assembles compossible truths on the basis of the void (C 80/24).

Unfortunately, this and similar statements can be a bit misleading. To simplify matters, I shall consider the implications of Badiou’s statement with respect to the ontology of *Being and Event*. In that text forcing occurs only after the naming of some event that is indiscernible within the situation. Its meaning—say my falling in love—is accessible as a second order referent only to those who are faithful to the generic procedure, and the statement is senseless to those who do not recognize it—say my in-laws (BE 435/397). Meaning and truth *are* thus closely related for Badiou’s own account. What he has in mind with his criticism, then, is that hermeneutics cannot break with the *meaning of the situation*, even if it aims to interpret or explicate it. The challenge for hermeneutics is thus the following: can it be shown that hermeneutics allows for a radical break in meaning and being?

In order to meet this challenge, I think it will be helpful to review two preliminary points. The first concerns the meaning of the term “radical” in “radical change” or “radical break.” For Badiou the radical discontinuity of events is marked both by its contradiction of the state (the form of the event is that of self-membership) and by its post-evental change in the transcendental of appearance for a world. I have argued that in fact this requirement is too robust, especially in the case of science (part b of *The Inexistence Problem*). A more suitable requirement might be the following. Given a state or process N and a “world” (whether physical, textual, epistemic or otherwise), N may be said to be the result of a radical discontinuity characteristic of an Event if none of the conditions in that world could illuminate a causal or explanatory relation to N.²⁴ Thus, for example, given the Newtonian world of physical research, the appearance of Einstein’s general theory of relativity may be considered radically discontinuous with that Newtonian world of physical research, because it is not explainable in terms of Newtonian physics, if one understands “explainability” as deductive inference. Events, then, are characterized by radical breaks in meaning and being because they constitute a marked *lack* in intelligibility between states or processes; one could say that discontinuity in intelligibility is their hallmark.

The second preliminary point concerns the way that Ricoeur addressed metaphysics in his thought. Ricoeur’s forays into metaphysics were always tentative.²⁵ That this step *can* be taken to complete the new account of hermeneutic truth Ricoeur argues is established by the unexploited meaning potential of traditional metaphysics; that it *must* be taken is occasioned by the referential dimension of metaphor and text.²⁶ The unexploited potential of traditional metaphysics, however, is only available after the detour occasioned by the need for philosophical reflection on account of Kant’s critique of metaphysics, Heidegger’s revolution in thought, and the relevant existing critiques of Heidegger, such as the need to account for otherness. The

return to metaphysics, then, cannot be straightforward, and occurs by way of Ricoeur's distinction between first-order and second-order reference. While first-order reference concerns the categories broached by analysis, second-order reference recalls the metacategories of Plato's "great kinds" as attested by the polysemy of being. In short, second-order reference concerns the dimension of ontological excess, the domain that emerges from the new, unforeseeable, or Evental.²⁷

In order to understand the radical and disconcerting idea behind his retrieval of metaphysics, a contrast with Anglo-American metaphysics is helpful here. For Anglo-American philosophers, perhaps the capital concern in metaphysics is the opposition between realism and anti-realism. The former maintain that we humans have access to reality (in some sense), and the latter deny this claim (in some sense). Metaphysics is addressed, then, through the lens of an epistemological concern. While Ricoeur does address metaphysics only after the long hermeneutic detour in the epistemic sense, he is not solely concerned with our ability to reach reality. Additionally, he recognizes that the semantic novelty of metaphor, text, and narrative is at the same time an ontological novelty. What the Anglo-American discussion of metaphysics leaves untouched is whether being itself undergoes radical transformations (in the above sense). Another distinction is thus suggested: one between those who hold that being, if we can finally reach it, is itself eternal and stable—I call this position stabilism—and those who hold that being itself changes radically and unpredictably—I call this position in-stabilism. The key problem in the latter case concerns how it is that one can claim reality does not fall into some kind of Heraclitean flux, a turmoil of total chaos, while at the same time remaining open to radical transformations.

With these two points in mind, what is striking about Badiou's challenge concerning the account of meaning in relation to eventual procedures is how close it is to Ricoeur's own account of the meaning of metaphors and the world of texts. Famously for Ricoeur metaphor captures a primary way that *radical* semantic innovation occurs. In a live metaphor a second-order reference emerges from the non-sense that constitutes a literal interpretation of the statement.²⁸ Furthermore, metaphors not only radically break with the meanings available in the situation, they redescribe *what is (qui est)* or being itself.²⁹ As if this were not enough to meet the objection, Ricoeur goes on to extend this account to narrative, and the narrative self.³⁰ One can thus legitimately claim that living with others in and through just political institutions is not only a task, but one that requires that one engage in a process of political truth. Even more generally, the three-fold process of hermeneutics outlined above is thus best understood as nothing short of Ricoeur's account of Truth (*vérité*). Ricoeur's hermeneutics, then, lacks none of the ability to subtract truths from a situation that Badiou's account has.

This last response to Badiou closes my account of Ricoeur's development. I have shown that the text does more than provide a shift in the size of linguistic unit under consideration, but that it does not fundamentally alter either Ricoeur's account of the hermeneutic circle or wagers, verification, or transformation. In fact, it only extends the last of these by providing yet another form of transformation, and in such a way that establishes the relative superiority of Ricoeur's infinite thought to Badiou's. What remains for me to establish is the extent of the provision in response to *The Romantic Problem*.

Critical to Ricoeur's development of the model of the text is his use of structuralism, rather than the natural sciences, for an account of explanation. Since this limits Ricoeur's ability to respond to Badiou's account of science and mathematics, and to a lesser extent Meillassoux'

focus on the ancestral, I shall have to broach this point. I plan to do so briefly, and in two steps. To begin with I shall explore Ricoeur's response to Changeaux in *What Makes Us Think?*, then I want to look to Don Ihde's conscientious extension of the model of the text to science.

3. Semantic Pluralism

In *What Makes Us Think?* Ricoeur and the neurobiologist Jean-Pierre Changeaux engage in a dialogue on the relation of the mind to the body and the implications neuroscience has for ethics. It would seem that in this work would constitute the prime locus of Ricoeur's engagement with the natural sciences. While this proves to be correct, the response Ricoeur provides to Changeaux's materialism is, almost without exception, *semantic pluralism*. The following makes the point quite nicely.

I proceed, then, from a semantic dualism that expresses a duality of perspectives. The tendency to slip from a dualism of discourses to a dualism of substances is encouraged by the fact that each field of study tends to define itself in terms of what may be called a final referent, something to which appeal can be made as a last resort. But this referent is final in its respective field and comes to be defined at the same time as the field itself is defined. ... Prohibiting this elision of the semantic and the ontological has the consequence that, on the phenomenological plane where I take up my position, the term *mental* is not equivalent to the term *immaterial* in the sense of something noncorporeal. Quite the opposite. Mental

experience (*vécu*) implies the corporeal, but in a sense that is irreducible to the objective bodies studied by the natural sciences.³¹

What one may witness here is a proposal to divide up the discourse given by the first-person perspective, which is the primary mode of phenomenology, and that of the third-person, which is kind of discourse scientists pursue. That Ricoeur holds these discourses to be heterogeneous, and charges philosophers with the task of retaining their distance, is what warrants calling this approach semantic pluralism.

While Changeaux just a little later states that he agrees with Ricoeur, the rest of the work seems to be an exchange in which Changeaux attempts to transgress this distinction. In particular, Changeaux and Ricoeur aim to try and account for an ethics given the advances of the neurosciences. It is for this reason that Ricoeur adds as a third discourse: the deontic domain that concerns legal and political issues.³² Still Changeaux wants to subordinate even this domain to the advances of neuroscience. The two remain, though amicable, at theoretical odds. Here one finds the problem posed by this approach: it remains defensive, and it does not at all extend hermeneutics beyond the domain of the human sciences.

This tactic may be the most appropriate response to the situation, but it does not respond to the need to find a way to extend hermeneutics to scientific discourse, as is required by *The Romantic Problem*. In a certain way, it more rigidly underlines the distinction between the human sciences and natural sciences than any other piece. Here natural science remains (in a rather Dilthey-esque way) a positivistic discipline with its own methods of explanation, hermeneutics a discipline of interpretation and the first-person perspective. What has critically been lost is the scope of hermeneutics as a

general philosophical position. For some time it perhaps seemed as if this were no great loss. Now that hermeneutics is faced with Badiou's criticism, however, it is imperative to venture forward.

4. Visualism in Science

Where one does find a properly Ricoeurian engagement with the natural sciences is in Don Ihde's work, which began robustly in this line during the mid 1990s. His aim is to take the model of the text and extend it to the sciences and technology. This extension occurs, one may say, in four stages, and the results undoubtedly meet with success. What I shall pause to question, then, is whether they are sufficiently general for the present demands posed by *The Romantic Problem*.

The first stage that Ihde undertakes is to deconstruct the persistence of the distinction between natural and human sciences. Ihde notes that the relation of the phenomenological hermeneutic tradition to science was often critical, because at its inception the predominant conception of science was positivistic. As a result, hermeneutic philosophers, such as Heidegger, tended "to see science as both a derivative and limited enterprise in relation to a deeper lifeworld."³³ The two disciplines colluded to keep their enterprises separate. This Diltheyan collusion, however, continued quite some time within Continental circles, despite the failure of positivism in Anglo-American circles beginning in the 1950s and most famously coming to fruition with Thomas Kuhn's *The Structure of Scientific Revolutions*. Ihde's deconstruction consists of two parts. First, he reviews the contributions of philosophers of science, sociologists, and feminists who critiqued the faulty positivist conception of science.

Next, he reminds phenomenological and hermeneutic philosophers that Ricoeur himself had already included explanation within the trajectory of understanding.³⁴ I note in response that this reminder is a bit quick, since Ricoeur included only the account of explanation given by structuralism. Still, the point is well taken, and in principle not something opposed to Ricoeur's enterprise.

The second stage consists in identifying what "texts" there are in science, so that Ricoeur's textual model of hermeneutics may be extended appropriately. Here the work of Bruno Latour proves critical for Ihde, since the former argues that the purpose of the laboratory is to produce inscriptions of various forms. Furthermore, because the laboratory is the site of the scientific enterprise, it not only prepares inscriptions, it is what *makes them readable*.³⁵ This readability, he notes, is text-like because what laboratories produce above all else is a visual display.

The third stage consists in pursuing what Ihde calls the "weak program" of a hermeneutic philosophy of science, which aims to show the way in which scientific practice already makes use of an implicit hermeneutics.³⁶ Here, Ihde fastens onto two central features of scientific practice. First, he recalls that Galileo himself had to teach people to "see."³⁷ As strange as this might sound, he recalls that often what one sees through a telescope is difficult to discern, and it is the practice with the instruments themselves that allows one "to see" what is supposedly given. Galileo, then, carried out a double reduction: from whole bodily perception to vision, and from the sense of vision itself to a specific form of vision.³⁸ Once the skills are acquired, or better, once the knowledge is gained, a certain gestalt shift occurs, such that it becomes nearly impossible to go back to what one saw before. For example, given knowledge of the surface of the moon with craters, it becomes difficult to *see* a mirror-like, featureless surface, which

Galileo's contemporaries apparently saw. His point is that scientific perception is not given, but attained through practice. Second, he examines the various visual texts contemporary science produces, including graphs, photos, x-rays, PET scans, MRIs, F-MRIs, slide staining, and even the macro-imaging done to take whole earth measurements.³⁹ The central argument here is that reading these texts is like the process of reading a literary text.⁴⁰

The final stage concerns what Ihde calls the "strong program," which is both more normative, and post-modern.⁴¹ One might capture its sentiment with the question: what could hermeneutics provide for science? The line of inquiry here is as follows. Since science is grounded in the lifeworld, and the visualism of science itself operates by certain gestalt features of our perception, such as figure/ground phenomena, phenomenological hermeneutic philosophers can recognize how science has been limited. The strong program thus pursues what might result if science took on a hermeneutic that was other than visual. For example, could virtual reality suggest a whole body perception that aided in research?⁴² Or more simply, what are the prospects of an audio hermeneutics? The post-modern dimension concerns the epistemic limitations suggested by the recognition that science has largely been limited by an historical choice in favor of a visual hermeneutic. It thus marks the limit to scientific claims to absolute truth.

At this point I would like to pose only two questions. I begin by noting that I see no in principle difficulty in Ihde's account, and recognize his work as a genuine contribution to the phenomenological hermeneutic tradition. What concerns me is the legitimacy of transferring the model of the text to that of visual displays, especially given the challenge of *The Romantic Problem*. I noted that Ihde was a bit quick in supposing that explanation was already part of the hermeneutic enterprise. At this point I would like to see in what sense precisely one *reads*

something like an x-ray. Ricoeur's model of the text, I demonstrated above, begins with the sentence as the basic unity of discourse, and then moves to larger grammatical formations (paragraphs, even stories). The sentence is critical for Ricoeur, since it is the grammar that makes metaphors possible, and likewise the radical innovation in meaning that accompanies them. Yet, there is no grammar to a visual display (which is not to say that the process is certainly free-form). Here, one would tend to think that the rules are dictated by the achievements of medical science as well as our theoretical knowledge of the instruments used to produce the display. Thus, while it is granted that these displays are referential, and that they fix a state by "writing," it remains unclear why precisely these qualify as texts in Ricoeur's sense.

The second point is closely tied to the first. I am concerned that Ihde remains too strongly reliant on the perceptual basis of phenomenology—a flavor given more by Merleau-Ponty than Husserl—to be of wider application. First, I note that this kind of extension has no application to mathematics or logic, the objects of which are not primarily perceptual. One cannot visualize a complex plane or an n-dimensional manifold. Yet, more importantly, Ihde has himself provided grounds for recognizing that technology *transforms* rather than merely enhances sight. He argues that various technological visualizations produce "a form of second sight that lies beyond ordinary or whole-body engagements, yet remains a visualization."⁴³ For example, when I look at a display of a gamma-ray burst on a computer screen, what I have reproduced before me is something that *in principle* I cannot see, since gamma waves are beyond the visible spectrum. In order "to see" in this case, then, my perception is mediated by technology. But this mediation is not simply an *extension* of my vision. Rather, it is produced by human *knowledge*. The mediation, therefore, is *epistemic-mediation*, and so fundamentally

transforms my perceptual relation to the objects seen. To state it bluntly: perception here is simply second to my understanding. Ihde seems to recognize this point, but then goes back on it. He finally concludes by stating: “At first, and at bottom, this perceiver is an ordinary and direct perceiver.”⁴⁴ This simply does not seem plausible given the way gestalt shifts in perception work—such as Ihde’s own example of the smooth moon of Galileo’s contemporaries shows. In short, what is suggested here, and this is in keeping with Ricoeur, is that phenomenological hermeneutics must not be afraid to put the mediation of signs *before* perception in a certain sense. At least to address *The Romantic Problem* fully, then, we phenomenological hermeneuticians shall have to be willing to accept this transformation.

5. New Tasks for Thought

At this point what I hope to have shown is that phenomenological hermeneutics is capable of renewing itself as a form of infinite thought, that it is capable of addressing not only *The Regression Problem*, but also the three Badiouian criticisms: *The Ancestral Problem*, *The Romantic Problem*, and *The Ghostly Presence Problem*. More, I hope to have shown that phenomenological hermeneutics has some of its own relative advantages with respect to Badiou’s own project, that infinite hermeneutics not only avoids the charges brought against it, but that it is able to succeed where Badiou’s philosophical project has yet to prove fruitful.

In addition to developing *The Regression Problem*, in addition to stating clearly why it is that philosophers can no longer afford to take a short road that aims to avoid the sciences, phenomenological hermeneutics has remained a pioneer in articulating the significance of the first-person perspective. This is to say, phenomenological hermeneutics, by its very character is

prepared to address *The Appearance Problem*. This point constitutes the first relative advantage of hermeneutics with respect to Badiou's thought. Furthermore, I have argued that Badiou's claim to have rectified the relational poverty in his description of world-relations is in a critical sense underdeveloped. In order lay legitimate claim to having described our world, Badiou will have to find some positive account for institutions and some normative account for human relations. Ricoeur, unlike Badiou, had done just this in his "little ethics" in *Oneself as Another*, and his own version of critical theory. This point constitutes, to my mind, a second relative advantage for hermeneutical thought. What remains to be seen is whether this hermeneutics in fact qualifies as an infinite hermeneutics, whether it is able truly to twist free from the metaphysics of presence.

In response to *The Ghostly Presence Problem* I have argued that Ricoeur's thought is up to meeting Badiou's challenge. This is to say, Ricoeurian hermeneutics may be considered a program of philosophical research open to the radical novelty constitutive of events, because, following Ricoeur's rearticulation of the hermeneutic circle, it may be understood to argue not only that events (a) emerge from an in-existent and (b) exhibit a radical discontinuity in the Being of beings, but also that (c) they are only made possible by a process of (i) wagering on their existence, (ii) intervening to verify them, and (iii) accounting for their consequences. In response to *The Ancestral Problem*, I have shown that while Ricoeur's rearticulation of the hermeneutic circle *does* presuppose a correlation between the question of hermeneutic inquiry and the questioned of that inquiry, but that this correlation just is not the problematic kind that Meillassoux identifies. As a result, phenomenological hermeneutics may countenance the corrigible statements of scientific thought just as Meillassoux himself does. For both these

reasons, I think that phenomenological hermeneutics may be understood to be in concert with the Cantorian Revolution, with the turn to infinite thought.

These advances notwithstanding, the response of the present chapter remains provisional. The heart of this provision concerns to what extent Ricoeurian hermeneutics may be understood to address *The Romantic Problem*. Ricoeur sketches a solution, and Ihde does extend phenomenological hermeneutics to topics in the philosophy of science. Nevertheless, even Ihde's solution has not addressed either logic or mathematics as Badiou requires, and it is not immediately clear how he could do so.

Additionally, there remain two other reasons one might argue the response of this chapter is provisional. First, Badiou has provided a detailed account of the four truth procedures: art, science, love, and politics. While Ricoeur has an account of inquiry that is similar to this process, the specificity of these procedures is not present in his oeuvre. Second, the heart of *The Romantic Problem*, one might argue, concerns the character of the human condition after it is recognized that reason is not bound by the constraints of finitude, after it is recognized that through the practices of art, science, love, politics and other similar practices one is able to reach an eternal truth. If *The Romantic Problem* is really to be met, if one is to live up to the promise of the Cantorian Revolution, then the philosophic task that follows must of necessity produce an account of human historical consciousness today. Badiou has tried to capture this point through his account of living. A similar response must be provided by hermeneutic philosophers.

To redress the provisions of this response thus constitutes one of the reasons why the present inquiry must forge ahead onto new ground. Yet, it must also be recalled that the tasks for infinite thought also concern those that would remedy deficiencies in Badiou's own approach, that would remedy, above all, the insufficiently robust character of events one finds in his

thought. In order to readdress *The Hard Core Problem*, *The Suturing Problem*, and *The Emergence Problem*, as well the provisions in response to *The Romantic Problem* I am going to propose an extension of Ricoeur's infinite hermeneutics, an extension that, while not incompatible with Ricoeur's early symbolic model of hermeneutics or his later model of the text, will develop a third model for hermeneutical thought. The grounds for this third model begin with the existence of a hitherto unclearly formulated, but always latent and possible, impersonal phenomenology.

4

Impersonal Phenomenology

The goal of the present chapter is to lay the groundwork for a new model for phenomenological hermeneutics. It is this model that will provide the resources to respond to the remaining aspects of Badiou's critique of finitude; it is this model that will enable me to develop a robust account of Events. Yet, as a hermeneutic philosopher, equally, as a philosopher who is committed to pursuing the implications of the Cantorian Revolution, I recognize that any positive argument must begin with a wager. It must begin by claiming some substantive ground in order that it might pursue its consequences. The present proposal for a third model for hermeneutical reflection is no different.

The wager that I shall pursue here and in the rest of the work that follows turns on the possible use of what I am going to call an *impersonal phenomenology*. The task of laying out just what this phenomenology entails and how it may be appropriated for hermeneutic purposes is the major effort of the present chapter, and so constitutes the first portion of my proposed third model for hermeneutics.¹ It is only in the next chapter, with the resources developed here, that I shall be able to articulate more fully just what that model is.

In order to begin the development of a third model for hermeneutics, a certain discernment in the structure of Ricoeur's hermeneutics is necessary. Last chapter I was concerned with defending Ricoeur's account from attack, but now I wish to extend the account itself. What is required, then, is a schematic presentation that allows for such an undertaking. If one reflects on the most important aspects to Ricoeur's infinite hermeneutics, as established last chapter, one will find that it has the following three parts. (I) Ricoeur *transformed the finite*

hermeneutic circle to an infinite one by establishing a new fundamental correlation between the question and the questioned, which replaced Heidegger's correlation between pre-comprehension and the meaning (*das woraufhin*) of Being. (II) Ricoeur *directs the focus of his inquiry towards an event of meaning*, rather than towards death, boredom, or even the structuring of meaning for epochs. The development in his thought concerns precisely what he understood as central for events of meaning. Early he focuses on symbols. Later he focuses on metaphor, texts, narrative, action, and even memory. (III) Ricoeur *established a three-fold relation to this event of meaning that subtracts its sense, its truth, from available descriptions by establishing how one must respond to these events by (i) a wager, (ii) an act of verification, and (iii) an openness to resulting transformation or re-figuration*. To be sure that I am extending Ricoeur's account, and more importantly that I continue within the project of infinite hermeneutics, these structural features must be retained.

What I identified as wanting in this account was only its scope, which needs to be broadened to address logic, mathematics, and the empirical sciences, and which needs to be "specified" to account for events of the type that Badiou has in mind, such as love. My proposal for how to accomplish this double aim is to return to point (I), since it is here that the hermeneutic circle is at base transformed. My departure from Ricoeur thus consists in developing a use for phenomenological description as a hermeneutic model *in place of* a linguistic or signifying one. Ricoeur was always concerned with taking the long road of reflection *through language*, and particularly *through signs*. Each of his models (the symbol, the text, but also his "lesser" transitional models such as the metaphor) were all *signifying* models and not phenomenological ones. Following Kant, Ricoeur took these signs as cases in which the transcendental imagination was manifest in its schematizing capacity. Thus, while it is true that

Ricoeur continued to use phenomenological description after his early *Freedom and Nature*, it always retained a subordinate status to whichever signifying model he was using at the time. The present proposal, by contrast, aims to make use of a *phenomenological* model in a primary position, making an account of signification subordinated to the present one.

There were, of course, *reasons* why Ricoeur did not develop a phenomenological model. A central concern as expressed in Ricoeur's texts was the way in which phenomenology tended to be wedded to an *incorrigible* program (following Husserl's "idealist" period). Though perhaps a more obvious reason is that phenomenological description does not itself seem to provide any concepts or notions that would be serviceable as models.² How, for example, would Husserl's notion of presence in absence, or identity in manifolds serve as a model for interpreting meaningful phenomena? The answer is at least not immediately clear.

In the present chapter, as a result, I shall first address the long standing concerns about incorrigibility and the character of phenomenological description. Here I think that a brief dialogue with Claude Romano, especially concerning his arguments in *L'événement et le temps*, will enable me to clarify this matter neatly. The relation between phenomenology and hermeneutics that I propose is one that is akin to Évariste Galois' revolution in mathematical algebra. This is a sense of hermeneutics that I think Ricoeur grasped well, even if he did not state it directly, and so it is by attending to it that I shall rest my claim to a hermeneutic *use of* phenomenology.

Second, I am going to develop two phenomenological concepts that will serve as the conditions for the phenomenological model I shall explore next chapter. The first of these is an *impersonal phenomenology*. Because phenomenology always has recourse to intentional experience, I must take some time to clear the way for an intentional experience that will not

immediately return one to the tradition of ontotheology, ghostly or otherwise. Here I plan to distinguish the phenomenological account of consciousness from accounts current in the philosophy of mind with some help from Dan Zahavi, and then to engage in dialogue with Zahavi himself by defending Jean-Paul Sartre's early thesis concerning the impersonality of the transcendental field. The rest of the all that follows will presume *only* this impersonal account of phenomenology. The second of these is a *pattern of consciousness*. The matter on this score is tricky, since it has in general gone unnoticed by phenomenologists, though Heidegger was notably aware of it. To illustrate the matter, I shall undertake a phenomenology of the erotic pattern of consciousness using a scene in Roberto Bolaño's *The Savage Detectives*. In the chapter that follows, I shall develop an inquiring pattern of consciousness starting from Heidegger's own statements.

As a final note before I begin the present investigation, I need to draw a clarifying distinction. As a matter of shorthand I have chosen to bring both concepts of impersonal phenomenology and patterns of consciousness under the heading of *impersonal phenomenology* in a broad sense. This joining seems legitimate since the two notions are complementary: as soon as one has recourse to an egological phenomenology, one tends to conceive of acts of that ego rather than ongoing patterns of actions. This does introduce some terminological confusion, but I trust that context should be sufficient to determine whether I am speaking of impersonal phenomenology in the broad or narrow sense.

1. The Galoisian Revolution

In the beginning pages of *L'événement et le temps*, Romano raises a simple but difficult question: just what exactly *is* the difference between phenomenology and hermeneutics? This question may cause any phenomenologist or hermeneutic philosopher a good deal of consternation, since it seems to be about as difficult to answer just what philosophy is. My proposal here is to distinguish between the two by an analogy: that hermeneutics stands to phenomenology as pre-Galoisian algebra does to post-Galoisian algebra. In short, hermeneutics effects a Galoisian Revolution with respect to phenomenological descriptions. This analogy may seem to be more obscure even than one's initial confusion, so I propose first to dialogue a bit here with Romano's phenomenological arguments and then turn to the analogy with Galois proper.

(a) The Naïveté Argument

Ricoeur's famous image for the relation between phenomenology and hermeneutics is that of the horticultural graft: given the stem of phenomenology, hermeneutics is a necessary but artificial graft that is performed in order to keep the whole plant alive (CI 10-5/6-11). In this sense "*phenomenology remains the unsurpassable [indépassable] presupposition of hermeneutics. On the other hand, phenomenology cannot constitute itself without a hermeneutical presupposition*" (TA 44/26). Romano equally affirms this reciprocal relation writing that phenomenology "is not possible but as *hermeneutics*."³ Yet, while Ricoeur finds that the two disciplines are opposed, Romano argues that hermeneutics is nothing other than phenomenology itself, adequately understood. If Romano were to use a horticultural metaphor, he would argue that hermeneutics is simply an organic development of phenomenology itself—a new branch rather than an alien. The reason for his case, though not unclear, is complicated when one considers its relation to his

work as a whole, which makes up the three volumes of his “evental hermeneutics.”⁴ It will thus be helpful to situate his argument against the background concern of the immediacy of phenomenological description.

Recall that the most widely held argument for distinguishing between phenomenology and hermeneutics, the one to which Romano himself alludes, is what might go under the name: *the naïveté argument*. It may be expressed as follows.

Phenomenology proceeds naïvely insofar as it fails to acknowledge the impossibility of a pure phenomenology. The reduction can never be completed, either because existence, life, language, history, or something else still cannot be reduced. For example, even to describe an eidetic intuition, one must express it in language. Thus, pure eidetic intuitions are impossible, and so one must acknowledge the inevitability of interpretation in our phenomenological descriptions.

While this paraphrase obviously only addresses a somewhat vulgar conception of phenomenology (no care has been taken here to distinguish between the *epōchē*, or the transcendental and eidetic moments of reduction), the basic charge that phenomenology fails to recognize the mediated access one has to phenomena is one that has plagued the enterprise since at least Husserl’s account in *Ideas I*, and it remains a live point of contention among phenomenologists, hermeneuts, and philosophers of mind.

With this concern in mind, it is easier to recognize Romano’s response. He argues that “phenomenology never supposed immediate access to phenomena,” or again that “all access to

phenomena is irremediably mediated.”⁵ These statements have two corollaries. First, there is no absolute departure for a phenomenological investigation. This is to say, one cannot begin except with presuppositions. Second, since one cannot have immediate access to phenomena, one cannot have a completely definitive interpretation.⁶

Here some qualification proves necessary. To begin with, Romano maintains, much like Ricoeur, that foregoing presuppositionlessness does not commit him to the position that any interpretation is just as good as the next. Rather, he argues that any interpretation must be anchored in a hermeneutic situation (*pace* Heidegger). Phenomenology thus avails itself of its own proper criteriology: the better the interpretation of phenomena, the more one is given to see. Some interpretations are better than others, and it is the task of phenomenology or hermeneutics to provide progressively better ones. The second caveat concerns the word “immediate.” Romano definitively *does* hold that one has immediate access to first person consciousness in one sense, otherwise his whole project would be impossible. Rather, what he means to deny is two-fold. First, he denies that this immediate access is *incorrigible*. One may be wrong about one’s understanding of these phenomena, and it is the work of interpretation or phenomenological research to correct our understandings. Such correction just is the work of reducing phenomena. But any attempt to understand these phenomena as somehow reducible to other phenomena (e.g. neurological states) fails to recognize their phenomenal quality. Second, he denies that this access is *unmediated by the achievements of culture*, including language and historical ideas. This is why he undertakes his own deconstruction of the metaphysical account of time, which he finds Heidegger failed to address adequately. One thus does have may be called “*direct*” access to first-person states of consciousness, which are taken to be irreducible, but this access may be corrigible and even theory-laden.

Romano's account is challenging, then, because it seems to have swallowed up any and all of the supposed differences between phenomenology and hermeneutics. One might be tempted, at this point, simply to throw up one's hands and exclaim that attempting to assign differences to these closely related schools of thought is an exercise in tetrapyloctemy. Against this sentiment, I urge that what is at stake here, and what Romano obscures in his response, is something that strikes the heart of the philosophical method. This something is the methodological advance made by hermeneutics over phenomenology. To make the case for the significance of the hermeneutic departure from phenomenology, I should like to establish a kind of analogy with Évariste Galois' revolution in mathematical algebra.

(b) Galois' Revolution

At age 19 on January 18, 1831, Galois delivered his first lecture from his "Public Course in Higher Algebra." He had just been expelled from the *École Normale Supérieure* for writing a scathing critique of the director for locking him in the school, along with all the other students, during the revolutionary events of *les Trois Glorieuses*. The class was, then, one of the few public venues he had left to express his ideas on what can only be called a revolution in algebraic studies. His thoughts had otherwise been repeatedly rejected for publication or simply lost. He would also die not much later (at age 20) in a duel, the motivation for which is uncertain, but that it was "about a girl" is clear. So what was the problem that occupied Galois?

In fact, Galois was concerned with more than one problem, but I shall here focus on the problem of equations solvable by radicals. Stated in the form of a question it is as follows: for which types of equations, in their general form, can one establish algebraic operations that

determine the value of the solutions when applied to the coefficients? That might sound a bit esoteric, so I want to review a few examples. Consider the equation $7x + 21 = 0$. The solution for x is clearly -3 , and here the coefficients are 7 and 21 . The general form of this equation, then, is $ax + b = 0$, which qualifies it is a first-degree equation. The general solution for any first-degree equation is $x = -b/a$ save for when $a = 0$. One will begin to see a pattern by considering second-degree equations, which have the form $ax^2 + bx + c = 0$. Their general solution was already found by Arab mathematicians and it, famously, is the following:

$\frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$. Gerolamo Cardano, the Italian mathematician, published solutions to cubic and quartic equations already in 1545, though he notes that a student provided the solution to quartic equations in the forward to his *Ars Magna*. The question that then plagued mathematicians was whether there was a solution to fifth-degree equations, i.e. those of the form $ax^5 + bx^4 + cx^3 + dx^2 + ex + f = 0$. Abel-Ruffini, in 1824, proved that all attempts at providing a general solution in radicals to polynomials of the fifth-degree or higher were impossible.

One comes, then, to Galois' contribution. He also addressed the question of whether or not there were solutions to fifth-degree equations, but his aim concerned the general form of the question. At stake in Galois' revolution was a new definition of algebra, one which *replaced the concern for specific calculations and specific solutions with a concern for operations and operational invariance*. For example, rather than ask after specific solutions to equations of addition on integers (e.g. $2 + x = 1$), one asks after the properties of equations using addition on integers. For example, will all operations of '+' on integers result only in integers, or are there cases where one would end up with rational or real numbers? That is to say, is the binary operation '+' closed on integers? Thus rather than focusing on equations of n -degree, Galois focused on what was for the first time called the "group" of an equation.

I do not here want to focus too much on the mathematics of groups. Very briefly, one can say that a group is any set with a binary operation that is (i) associative, (ii) has an identity element, and (iii) has an inverse. The set of integers, then, forms a group with respect to the binary operation addition, since for any integers a , b , and c , $(a + b) + c = a + (b + c)$, meaning that it is associative. Second, the identity element here is 0, since $a + 0 = a$. Finally, for every element x of the set of integers, there exists an inverse with respect to addition, namely $-x$.

Galois' breakthrough itself concerned not so much the general definition of groups, but what are now called normal subgroups. This allowed him not only to show how the essence of the problem of fifth-degree equations lay in structural configurations, but also to show, by focusing on operations and operational invariance, that the entire field of algebra must be reconceived. What he established in particular was the need to investigate a whole domain of algebraic structures, which had properties, extensions, isomorphisms, and puzzles of their own. Numbers, if they are to be considered at all, are not only to be addressed abstractly as possible solutions to equations (i.e. as substitutions of variables), but also as the results of operations—that on which the operations work.

The analogy that I want to suggest here is that hermeneutics differs from phenomenology as group theory does from pre-Galoisian algebra. It was never a break from a “pure” phenomenology to an impure one. Hermeneutics is *not* concerned with the simple epistemic problem of realism/anti-realism, or in terms more at home in the discourse: pure descriptions or impure ones. Arguing that phenomenology can accommodate “impure” and “corrigible” descriptions, which is Romano's point, is analogous to Abel-Ruffini earlier proof that no solution to fifth-degree equations is possible. While it establishes a point with which all hermeneuticians agree, it misses the point of the hermeneutic revolution. Like Galois' focus on algebraic

structures, hermeneutics reflects on *the operations* of first-person consciousness *as unified in structures*.

I anticipate that the significance of this analogy will not be immediately comprehensible in all of its implications, and that to a great degree it will be resisted. I thus hope to spell out here just what three of the more important implications are, at least of the not immediately obvious type, and along the way I shall turn to just why one ought to accept these consequences.

The first point, then, and one which is everywhere obvious in Ricoeur's work, is that *the hermeneutician is not constrained to reflect solely on first-person consciousness, and neither are other modes of consciousness (second or third) to be reduced to this first one or even required to give it absolute primacy with respect to these others*. This last clause establishes just why Ricoeur searches for eventual novelty in live metaphor, a purely textual phenomenon, and not in conscious states, as, for example, Romano does in his phenomenology of the amorous encounter. As a hermeneut, one may, indeed must, accept the advances made in the sciences whenever they are pertinent to one's inquiry. One is not at liberty to cut short their achievements by recourse to some more fundamental plane of first-person consciousness. On the other hand, this does not mean that the hermeneutician must evacuate every claim made concerning first-person consciousness. This sphere of reflection is to be addressed as the matter at hand requires. There is, of course, no certitude concerning whether first-person consciousness will have the last word on a matter, and this is why the hermeneutician must seek out work done in other disciplines as part of the hermeneutic arc of inquiry. Ricoeur, of course, does this much in his classic *Conflict of Interpretations*, but given the demands by Badiou and Meillassoux, we hermeneuticians shall have to be more vigorous in addressing the "hard" sciences as well as logic and mathematics in their own right. This means even, to touch on a point of controversy for contemporary Anglo-

American philosophy, that scientific experimentation for the sake of answering philosophic questions is not out of the realm of possibility—even welcome.

Second, and this much is logically required for the first point, *the hermeneutician gives up the principle of all principles*. One still holds, as Ricoeur writes, to “the derivative character of linguistic meaning [*significations*]” (FA 65/41). What is at stake, rather, is the source of truth and knowledge. In the famous §24 of *Ideas I* Husserl writes the following: “No conceivable theory can make us err with respect to the *principle of all principles: that every originary presentive intuition is a legitimizing source of cognition [Erkenntnis], that everything originarily (so to speak, in its “personal” actuality) offered to us in “intuition” is to be accepted simply as what it is presented as being, but also only within the limits in which it is presented there.*”⁷ That the originary giving intuition is the source of all knowledge, which not even science can question, is utterly rejected by the hermeneutician.⁸ This is not even a regional principle that pertains to first-person consciousness.

There are two good reasons to reject this principle. First, accepting this criterion commits one directly to *The Ancestral Problem*. It defines correlationism in an exemplary way. But second, and this point establishes why it cannot even be a regional principle, it fails to recognize that truth is gained *through a process*. I have already shown that Ricoeur’s account of truth proceeds through a three-fold process that requires a wager, verification, and transformation. This structure, in short, exemplifies the (post-Cantorian) hermeneutic circle of inquiry. Hermeneutics thus does not avail itself of the principle of principles in any way.

Finally, *knowing for the hermeneutician is nothing like perception*. This point also speaks to the rejection of the principle of principles, but in a way that might not be immediately clear. The basic difficulty that phenomenology has seemed to have in this respect is that

intuition, which is the source of all knowledge according to the principle of principles, is somehow always at least metaphorically attached to sensory perception. I recognize that Husserl is at pains to broaden intuition to include the categorical, but I also recall that he does so in §45 of the sixth of the *Logical Investigations* only according to an analogy with sensible intuition. For the hermeneutician, what is known can entirely exceed not only sensation but even what is imaginable. This is why Ricoeur undertook to incorporate the critiques by suspicion (Freud, Marx, Nietzsche) into his hermeneutic arc. This means not only that knowing is thus corrigible as Romano is willing to accept, but also that what is known—what is—being—is established only through the process that defines the hermeneutic circle.⁹ In short appearance, “that [which] shows itself in itself,” is not taken as the measure of being—or whatever other name one might have for reality (BT 28/51).

This last point brings me to a little polemic with Jean-Luc Marion’s possible reformulation of the principle of all principles according to his proportion: “so much reduction so much givenness.”¹⁰ One could imagine this point being used to refute the foregoing. In response, I note that the hermeneutician breaks fundamentally with the notion that there could be some intuition of givenness that exceeds concepts utterly, as Jean-Luc Marion would have it. Here a point by Badiou is instructive. He also recognizes that knowing (or better: the process by which truth is established) is not a single act, is not like taking a look, but is instead a complex structure. He recognizes this for the simple reason that so much in advanced mathematics requires that one go beyond such intuitionism.¹¹ In his essay “One, Multiple, Multiplicities,” he provides the example of “grazing” to make his point. In the case of the empirical, intuitable, grazing a surface, one is able to develop the limit notion of touching at only one point—a tangent. *Yet concepts, far from being impoverished relative to intuitions, vastly exceed them.* In

the nineteenth century, mathematicians discovered that “there exist continuous functions that cannot be derived [meaning one cannot attach a tangent line to them] at any point. Try to imagine a continuous curve such that it is impossible for a straight line to ‘touch’ it at any point.”¹² It is possible for our concepts to exceed utterly both our intuition and our imagination, and one can find a myriad of examples in mathematics for this case (complex planes, n-dimensional spaces, etc.). These are not “poor” phenomena as Marion would have, but rich ones.¹³ And it is their immensely rich character that opened the way for Badiou’s own account of events. Marion’s reformulation of the principle of principles, in which “[t]he reduction thus operates like a sort of middleman who leads the visible towards givenness,” only commits one *all the more* to the shortcomings of phenomenology.¹⁴ It will not suffice, then, as a reformulation that would align hermeneutics and phenomenology.

Because this matter is indispensable for all of what follows, I want to pause for a moment to review the foregoing points. First, what I am calling the Galoisian Revolution consists in establishing the pertinent analogy for the relation between phenomenology and hermeneutics. This analogy is the following: the focus of pre-Galoisian algebra on single algebraic solutions is to the phenomenological reflection on single intentional actions *as* the focus of post-Galoisian algebra on operations and structures is to hermeneutical reflection on first-person patterns of consciousness as well as other pertinent structures of meaning (e.g. symbols in texts). I shall explain below (§4) in detail just what is meant by patterns of consciousness. For now, turning to the second point, I note that one of immediate implications of this revolution is that *the hermeneutician is not constrained to reflect solely on first-person consciousness*. Third, such freedom is clearly purchased at the price of Husserl’s *principle of all principles*, which the hermeneutician must give up in order to begin her philosophical reflection. Finally, *knowing for*

the hermeneutician is nothing like perception, because hermeneutic reflection is not accomplished in an act of perceiving or sense-giving (in first-person consciousness or otherwise).

2. Experience

While I have just argued against some of the most sacred points of phenomenological methodology, I shall nevertheless persist in undertaking a phenomenology of my own. As I hope the analogy with Galois' revolution makes reasonably clear, hermeneutics still continues only with central phenomenological commitments. Among these is the need to take recourse to first-person conscious experience (*Erlebnis*) to address certain phenomena that cannot otherwise be addressed, and that it must do so through phenomenological descriptions. What remains unclear at this point is the status this experience has for phenomenological hermeneutics. To clarify this point requires additionally that I illuminate both why it is that hermeneutics must avail itself of some form of first-person description, and how it can do so all the while avoiding a commitment to some form of transcendental subjectivity. My general answer is that one can do so only by elaborating an *impersonal phenomenology*. Although this notion was first intimated by Husserl himself, what makes my approach a novel one is the appropriation of what the Bernard Lonergan termed "patterns of consciousness."¹⁵ It is only through such recognition that the myriad of problems attaching themselves to this impersonal approach may be avoided. Additionally, this selective appropriation of first-person description (which is really a dislocation of the criterion of truth and knowledge) along with the establishment of patterns of consciousness completes the

analogy with both facets of the Galoisian revolution: a focus on operations *and* structures (i.e. operational invariance). I am going to begin, then, by looking to some critical distinctions.

Most will concede that there is something like undergoing an experience (the sound of music, the color of a dress, the taste of chocolate). In order to recognize this “what it is like” of experience one must not only be acquainted with the experience, have access to it, but also one must be able to access it *as* an experience. Sometimes philosophers, especially phenomenologists, distinguish these two aspects by stating that there are object experiences (the taste of chocolate) and subject experiences (my awareness of my experience of chocolate). To complicate the matter somewhat, it is also claimed that the experiences themselves are experienced as, given as, *my experiences*—they have a quality of mineness (*Jemeinigkeit*) to them. And to confuse the matter even further, this mineness of experience is sometimes taken as a minimal self, other times as a representation of one’s conscious self, and sometimes quite robustly as just who one is.

I hope to sort out this mess of characterizations. To do so I want focus on two principle points, two areas of concern about which several distinctions need to be drawn to continue the present project. First, just what is it that characterizes first-person *consciousness*? Philosophers in the Anglo-American tradition, such as Nagel, Perry, or Searl, have recognized that the types of self-reference available to the first-person perspective are distinct from those of the third-person perspective. What is not always clear in this tradition, however, is the relation of these forms of self-reference to just what it is that makes mental states conscious. Clarifying this point will establish why it is that one must avail oneself of phenomenological descriptions for hermeneutic projects. Second, what is the ‘I’ of self-awareness? Most critically here I must address both how there is an ‘I’ to such awareness, and how this ‘I’ nevertheless is not *who* I am. My claim, to put

it one way, is that the dative of manifestation is not a subject but an “impersonal” someone—the unity of which is established later. This much forms the cornerstone of the present (and narrow) sense of impersonal phenomenology.

(a) *One-Level Consciousness*

My position is premised upon the rejection of higher-order theories of consciousness. Another way to state this claim is to argue that while phenomenology is typically characterized as a theory of “intentionality,” in fact this characterization is false (at least for the relevant sense of “intentionality”). To make this point clear, I want to turn to an examination of higher-order theories.¹⁶

There is manifestly a distinction between mental states and conscious mental states: the former may concern the firing of many millions of neurons, but only the latter are those of which I am in some way aware. Higher-order theories argue that one may distinguish between transitive and intransitive conscious states. In the former one is conscious *of* something; in the latter one is conscious *simpliciter* (as opposed to nonconscious). What makes a mental state intransitively conscious is that it is taken as an object by a relevant higher-order state. Rosenthal, for example, writes “[i]t is one thing for us to be conscious *of* something—what we may call *transitive consciousness*—and another for a state to be a conscious state—what I’m calling state consciousness.”¹⁷ Intransitive consciousness is a non-intrinsic, relational property, and it is the occurrence of a higher-order representation that makes one conscious of this first-order mental state. Where Anglo-American philosophers of mind tend to differ concerns the interpretation of the relation of the higher-order states to the first-order states.¹⁸ Does one become aware of it by

some higher-order *thought*, as Rosenthal argues, or does one become aware of it by a higher-order *perception* or monitoring, as Lycan argues?¹⁹ Whichever side one chooses in this alternative between higher-order thought (HOT) and higher-order perception (HOP), one is committed to the notion, summarized by Van Gulick, that it is “the addition of the relevant meta-intentional self-awareness that transforms a nonconscious mental state into a conscious one.”²⁰

For anyone trained in Continental phenomenology, the stakes of this debate are quite foreign. Its motivation, however, is easy to recognize: naturalism, or the reduction of conscious states to biological ones. This motivation is what is at stake in the couple: intrinsic/non-intrinsic. If consciousness is held to be intrinsic, then it would be something unanalyzable and “mysterious.” Rosenthal, for example, writes: “We would insist that being conscious is an intrinsic property of mental states only if we were convinced that it lacked articulated structure, and thus defied explanation.”²¹ But if consciousness were intrinsic, then its reduction to non-conscious states would prove impossible—or at least full-blown reduction would.

Unlike some phenomenologists, I have no opposition to a properly worked out correlation between conscious states and neurological ones. The reason I cannot agree with most forms of reductionism is that I hold they are on several key issues inaccurate. What I defend instead, along with Sartre and Zahavi, is a one-level account of consciousness, which requires that one reject the thesis that consciousness is “intentional.” The self-awareness or self-consciousness entailed by phenomenal consciousness is, according to higher-order theories, a subject-object relation, or an “intentional” relation because one state of consciousness is of or about another (first-order) state. By holding to a one-level theory of consciousness, I instead subscribe to the position that what makes a mental state conscious is located within the state itself; it is an intrinsic property of that state. I thus hold to the position that it is necessary to

distinguish between reflection (higher-order monitoring) and self-consciousness. There is a difference between casually looking at a table, and being aware of one's looking at a table.²² Only in the second case does the perception of the table become thematic, and this reflective awareness in turn presupposes a pre-reflective self-awareness, which is an immediate noncognitive relation of consciousness to itself. This is why Sartre writes that this "self-consciousness [is something] we ought to consider not as a new consciousness, but as *the only mode of existence which is possible for a consciousness of something.*"²³ This pre-reflective self-consciousness is thus the primary mode of consciousness, presupposed by all others, and cannot be explained in terms of some other occurrence. As far as I can determine there are four arguments that hold in favor of this position.

(1) *Argument from Fitness.* This is perhaps the simplest and most intuitively appealing of the arguments. Consider the experience (*Erlebnis*) of reading a story. Here one's attention is on such matters as the character's concerns, impending threats, possible resolutions and reversals of plot and fortune, *et cetera*. One does not attend in these instances either to oneself or the activity of reading. When reading, then, I simply enjoy continuous first-person access offered by my own conscious life without reflecting on it (as a higher-order theory would require). A one-level account of consciousness, then, simply fits best with this experience.

(2) *Argument by Elimination.* On this score, a phenomenologist argues that a one-level account of consciousness is the best because the other two alternatives are false.²⁴ Against the first alternative, I hold that it is impossible to be conscious without at least having access to the experience in question. Consider the experience of pain. It may be localized in my body, say my tooth, but even then the conscious state is non-intentional; it is not about my tooth, it is just a throbbing sometimes sharp pain "in" my tooth. I may become absorbed in the pain. It may

distract me, interrupt my thoughts, override my desires for companionship or even food. Yet, through all this it remains one form or another of pain—a non-intentional conscious state, in which I may become absorbed. In order for it to be conscious, I must have first-person access to this experience. This access just is pre-reflective self-awareness. Against the second alternative, I recognize that I in no way need to pay attention to this conscious state in order to be aware of it. I may try to focus on something else, a trip to Ireland, the beaches of Mazatlan precisely in order to mollify the experience of pain, but try as I might it emerges once again to overtake my consciousness. Having rejected these two alternatives, the only account left is that consciousness is characterized originally by pre-reflective awareness.

(3) *Argument by Regress*. This is the first of the more “theoretical” arguments. I pose it in three stages. The first stage is the naïve problem of infinite regress: one cannot take *all* occurrent mental states as being objects of higher-order states, since then the second-order states would need to be taken as objects by third-order states, and those states by forth-order states, etc. in order to be conscious. The result is thus a regress that does not explain self-consciousness as a higher-order property. The second stage is the obvious block for this regress: one may simply accept the existence of nonconscious mental states, and that second-order states are of this character. In response, the third stage, the phenomenological reply is: though it is true that accepting higher-order states as nonconscious blocks the regress, this advance is bought at the price of explanatory vacuity.²⁵ For one now has attempted to explain self-consciousness by the relation of two nonconscious states, namely first-order and second-order. But why exactly should this relation result in consciousness with phenomenal qualities? Yet, since this was precisely the *explanandum*, and it is no longer explained, the blocked regress makes the argument necessarily vacuous.

(4) *Argument by Circularity.* Here the phenomenologist argues that even if the regress is halted by appeal to the nonconscious character of higher order states, then vicious circularity results. First, I want to recall just what the explanatory gap is. What makes a first-personal self-reference different from a third-personal one is that the latter is neither sufficient nor necessary to qualify an experience as “mine,” i.e. first-personal. To know that I am perceiving my table, it is not sufficient to describe Sebastian Purcell as seated before such a table at time T_0 and space S_0 , with his cones and rods active in his eyes, and so on, as could be specified third-personally. The gap here concerns the fact that I could be in possession of such knowledge and still fail to recognize *that I am that person*. Neither is such knowledge necessary, since I can certainly have first-person conscious experiences all the while suffering from amnesia of who I am. Now, I make the case that accounting for higher-order states by characterizing them as nonconscious results in a vicious circle. In such a case, one is forced to account for the relation between these states in terms of object-identification, that is, without appealing to the intrinsic character of consciousness. The problem is that if *every* item of self-knowledge is supposed to be grounded in further identification, then there is just no way to know that it is true *of me* without already knowing that it is *of me*. It is only in virtue of my *already* given access to pre-reflective self-awareness that I am able to identify a description as pertaining to my awareness. Thus, the regress block results in vicious circularity.

Two consequences follow from a one-level account of consciousness. First, the program of strong-reduction may be seen as a failure in principle. If I am right, the very aim of reducing states of first-person consciousness to third-person states explainable by neuroscience is a category error. This has messy implications for the knowability of the universe in general, since it entails that projects, such as the grand unified theory or the theory of everything, which would

presumably reduce all that is knowable about physical laws to some final equation or set of equations are impossible.²⁶ The final set of equations will be the product not of knowledge but of neural impulses, and thus eliminates the quality of the equations as *experiences of knowledge*. These ideas, or better: scientific ideals, may be understood as a kind of hang-up from the Enlightenment account of reason that sought to explain the universe like a watch. By affirming Badiou's post-Cantorian account of reason I have already accepted the death of this project by recognizing the inherent errancy at the heart of being itself. Here, I affirm one further step, in which there are simply various levels of what is known that do not reduce to each other, each functioning quasi-autonomously.²⁷ This is the case because what is known by first-person accounts cannot be explained in terms of third-person explanations. Second, it means that in order to explain the process of inquiry, one is required to start with these states precisely because they cannot be explained in terms of other relations. *This is why hermeneutics presupposes phenomenology in a constitutive way.*

I want to hold out some hope, however, for programs of reduction. While the strong program of reduction is, on my reckoning, an error, I nevertheless maintain that promising work may be done to accomplish a weak program of reduction. By this I mean that it is manifestly the case that there is much that can be learned by *correlating* one-level conscious states with neuroscience. Indeed, careful empirical examination can be used to challenge various presuppositions about our one-level states, though one must be careful to recognize the non-reducibility of certain states to others, as well as the inability to speak of strictly causative links. Thus, while I have some deep disagreements with Thomas Metzinger's work, I nevertheless find much of what he has done to be fruitful. Indeed, Merleau-Ponty was not at all afraid of turning

to empirical psychology for help and it seems only to be historical accident that has turned attention away from an otherwise fruitful field of research.

(b) The Subject and Self-Awareness

I have already made mention of the “I” and referred to “me” in the foregoing exposition of the one-level account of consciousness. It has come time to clarify just what is meant by these indexicals. The central point here is that such an “I,” which I take to be constitutive of every experience of self-awareness, of first-person phenomenal consciousness, is not a subject, not even minimally.²⁸ It is a necessary moment for any conscious experience, but does not provide any form of unity, synthesis, identity, or substance to one’s multiform and continually changing experiences. To make my case, I want begin by reviewing Sartre’s three arguments that there is no such ego in his early essay, *The Transcendence of the Ego*.

(1) *The Ego is Superfluous*. Sartre’s concern is to argue against certain neo-Kantians who proposed that the ego is necessary to ensure the unity or stability of consciousness. On their reasoning, an empirical ego must be present in order to account for the ordered character of my conscious experience. In response Sartre argues that one simply need not posit the existence of an ego in order to account for this ordered succession of experience, only the structure of inner time consciousness is required, and if one should like to call that a “unity,” then it is not the relevant kind of “unity.”²⁹

(2) *The Ego cannot be part of Consciousness*. Sartre points out that consciousness is characterized by its fundamental self-givenness, “[a]ll is therefore clear and lucid in consciousness: the object with its characteristic opacity is before consciousness.”³⁰ This self-

manifestation, which has no hidden parts, is opposed to the ego, which “would be a sort of center of opacity.”³¹ Its character is not given, but must somehow be unearthed, exposed, and disclosed. Since it is of such a different character, it is not part of consciousness, but rather something added on later.

(3) *There is no Experience of the Ego.* This point is rather like David Hume’s own argument. In any given experience (*Erlebnis*) one simply does not encounter such an ego. Consider, once again, the experience of a tooth-ache. One may become absorbed in the pain, or one can try and flee from it, but in either case one does not find a supposed individuating, unifying, synthesizing ego that underlies all this experience. This is not to deny that there is self-awareness, a noesis in relation to the conscious experience, but this awareness is nothing that would unify or more importantly identify an individual *over changes* in experience. As soon as conscious experience changes so too does the noetic pole of awareness. As a result, one simply does not find an ego there.

The most immediate consequence of these arguments, as Sartre notes, is that “the transcendental field becomes impersonal; or if one prefers, ‘pre-personal,’ *without an I.*”³² To accept these arguments, then, is to embark on an impersonal phenomenology, one in which the subject, the *I*, is not given, but a task to be achieved. What thus separates Ricoeur’s work on the narrative identity and Sartre’s early work on the transcendence of the ego is only the way in which each accounted for this latter task; they do not differ in the starting point. I hope in a later work to follow this reconstruction thoroughly (to a new hermeneutic account of subjectivity after the Cantorian Revolution), but for now all that follows will be a phenomenological investigation conducted without the presupposition of an ego. All that is necessary is self-awareness, a dative

of experience, but this dative “I” need not entail anything more than an essential component of first-person experience. Above all, it is not a synthetic unity or individuating principle.

Before leaving this point, however, it would be wise to respond to possible objections. Sartre openly admits that he is not the first to advance these arguments, even in a phenomenological way, since he cites Husserl’s own account in the Fifth Investigation of the *Logical Investigations* as well as his arguments in the *Cartesian Meditations*. Husserl, however, retracted his position on this matter by the second edition of that work, and before Sartre turns to write *Being and Nothingness* he also retracts the three arguments just reviewed above. This may leave one to wonder just why this is. I want now to review two pertinent objections to the above arguments.

Inaccessibility Argument. Though neither Husserl nor Sartre was entirely clear on this point, Marbach and Zahavi have argued that “one of Husserl’s principle reasons for this change was the difficulties his original theory encountered when it came to tackling the problem of *intersubjectivity*.”³³ To make his case Zahavi undertakes a mini-phenomenology of scorn. He writes the following:

If we imagine a situation wherein I am upset by the unexpected scorn of a colleague, we would say that I am upset, not by my own scorn, but by the scorn of another. In my encounter with the colleague’s scorn, I am acquainted with myself and I am conscious of somebody else; I am conscious of two different subjects. What is it that permits me to distinguish between my own experience (of distress) and the other’s experience (of scorn)? Whereas my own experience is given to me in a distinct first-personal mode of presentation, this is obviously not the case with

the scorn of my colleague; *in fact, the first-personal givenness of the other's experience is, in principle, inaccessible to me...* This special access is constitutive of mental unity.³⁴

What is one to make of this phenomenological analysis?

I note first that Zahavi, for the moment, brackets possible cases of schizophrenia to make his point. I too will return to the success of his ability to navigate this possible objection in a moment. But for now, with respect to the phenomenology of scorn, my response is that it makes a straw-man out of impersonal phenomenology. His argument is that unless there were already a constitutive unity, an ego or I, it would be impossible to discriminate between my experience of scorn, to which I have privileged access, and that of my colleague's, which remains inaccessible. But an impersonal phenomenology does not deny that there are different modes of givenness, such as first-personal or second-personal. It grants that there is a distinction between the way the Other is given and the way scorn is given in this experience to first-person consciousness. What is asked is: where in this *experience* is the *unity* of these egos given? Again, I do maintain that there are two persons here (this point would be developed in a full hermeneutics of subjectivity). But my point here is that such unity is not *given* in experience.

Act-Transcendent Minimal Self. The most obvious response to the absence of some synthetic unity in experience is to accept this as a matter of course. As Zahavi argues: "the self cannot be given as an act-transcendent identity in a *single* experience... It is only by comparing several experiences that we can encounter something that retains its identity through changing experiences."³⁵ This self is admittedly an abstraction, but also a requisite minimal component for narrative accounts, such as Ricoeur's, as well as the ability to recognize past experience as

my own. “To question the unity of mind by pointing to alleged interruptions in the stream of consciousness (dreamless sleep, coma, etc.) is consequently pointless, since one thereby makes the erroneous assumption that it is the *continuity* and *contiguity* between two experiences that makes them belong to the same self, rather than their shared mineness, or their shared matter of givenness.”³⁶ In brief, it is only by having prior access to the mineness of an experience that I am even able to be wrong about *my* past, and this is something that even empirical science verifies in occurrences of schizophrenia.³⁷

Delaying once again the cases of empirical psychology, I want first to argue that Zahavi here is trading on two different sense of “self” or “mineness.” What is argued by impersonal phenomenology is *not* that one does not experience something as one’s own, as mine, but that this experience of mineness, even across temporal change, is not sufficient to account for the unity that is me. To demonstrate that “mineness” and “me” are different, I want to establish two points. First, Thomas Metzinger’s account of the phenomenal self model (PSM) is sufficient to account for my representation to myself that I am the same being across change.³⁸ It is, like Lacan’s claim that the “I” is produced through the mirror stage, or Freud’s various accounts of the ego, a kind of theory of suspicion that can in every way account for the psychological feel of unity, all the while demonstrating that such a unity is illusory. There are, in short, other ways to account for the quality of “mineness” without postulating that there is some minimal self or unity behind our conscious experiences.

Second, what is at stake in the distinction between “mineness” and “me” is not simply discontinuity or discontiguity between conscious states. Zahavi here fails to account for the conceptual puzzles that Derek Parfit (in)famously presents in his *Reasons and Persons*. To recall his “branch-line case,” suppose that I am teletransported to Mars. The process works by

reassembling an atom-by-atom accurate Replica of me on Mars, one which has all my memories, intentions, and desires, and the process then destroys the body on Earth. Yet, suppose there is a malfunction, and while a Replica of me is produced on Mars, the body is not destroyed on Earth—at least not immediately. Instead, I contract heart damage that will kill me in a few days. By two-way television I speak with my Replica.

Since my Replica knows that I am about to die, he tries to console me with the same thoughts with which I recently tried to console a dying friend. It is sad to learn, on the receiving end, how unconsoling these thoughts are. My Replica then assures me that he will take up my life where I leave off. He loves my wife, and together they will care for my children. And he will finish the book that I am writing. Besides having all my drafts, he has all my intentions. I must admit that he can finish my book as well as I could. All these facts console me a little. Dying when I know that I have a Replica is not quite as bad as, simply, dying. Even so, I shall lose consciousness forever.³⁹

My point in recalling Parfit's thought experiment is to show that Zahavi's argument for an act-transcendent self only retains legitimacy by ignoring the possibility of *radically* discontinuous conscious experience. In Parfit's branch-line case, what one has is an instance where the contents of one's conscious experience are the same, including the experience of "mineness," at least up to a point. Yet the felt mineness for these conscious experiences, say a memory of the initial insight that lead a book project, is in fact experienced by two different people. Despite what Zahavi wants to argue, then, "mineness" and "me" are not equivalent terms. The result is

that Zahavi cannot claim that the experience of mineness attests to some act-transcendent minimal self.

The possible option left open to Zahavi is to dismiss the thought experiment entirely. He could argue that thought experiments have an inherent weakness: they can build in category errors that are nearly impossible to detect if one at all tries to respond to them. Consider a thought experiment in which one begins by imagining that gold floats on water, and then one proceeds to extrapolate properties of the metal from that scenario.⁴⁰ Clearly any result one would obtain would be spurious, though it would be nearly impossible to show why in terms of the thought experiment.

I do not think this is the case with Parfit's examples, but in response to this possibility I want to turn to the case of schizophrenia. Since this phenomenon does in fact occur, it is not susceptible to such errors. The case that Zahavi believes makes his point is that of thought insertion. One patient suffering from this pathology claimed the following: "Thoughts are put into my mind like 'Kill God.' It is just like my mind working, but it isn't. They come from this chap, Chris. They are his thoughts."⁴¹ Metzinger concludes from testimony such as this that the "phenomenal quality of 'mineness' or bodily 'selfhood' is by no means a *necessary* precondition of conscious experience."⁴² In response Zahavi argues that "[e]ven if the inserted thoughts are felt as intrusive and strange, they cannot completely lack the quality of mineness and first-personal mode of givenness, since the afflicted subject is quite aware that it is he, himself, rather than somebody else, who is experiencing the alien thoughts."⁴³ While this point may hold against Metzinger (I have my doubts), it does little to argue against an impersonal phenomenology, since what one witnesses in Zahavi's response is again tantamount to equivocating on "mineness." What an impersonal phenomenology denies is not that conscious

experiences are given as mine (Metzinger's phenomenal self model can account for that much), but that such experiences constitute a minimal unity for all one's conscious experiences. There is simply no need to postulate such an entity to account for this experience.

I conclude, then, that arguments (1) and (3) of Sartre's points in his early *The Transcendence of the Ego* still stand, and that there is no better alternative account. I remain unsure concerning the second point, since there is a quality of mineness attached to conscious experience (at least for adults, though developmental psychology might suggest something else for infants), and it is not clear from Sartre's writings exactly how his argument would square with this point. While there are additional phenomenological descriptions that would explicitly point to the anonymity of experience, such as Levinas' account of *il y a* in the experience of insomnia, or Romano's account of despair, I have made the present case negatively and without those points, since those arguments conform to a phenomenological framework that I do not share.

4. Patterns of Consciousness

Having established the preliminary distinctions required to begin an impersonal phenomenology, I want now to establish just how, or with respect to what one should direct one's attention when undertaking this kind of phenomenology. The significant departure here from the established tradition is that I am not going to reflect on isolated experiences and properties (i.e. eidetic features) of those experiences. Instead what I aim to reflect on concerns that Lonergan calls "patterns of consciousness." Phenomenological reflection has, so far, been devoted principally to the description of moods or states rather than patterns of consciousness. One finds, for

example, Sartre's phenomenology of the gaze, Merleau-Ponty's account of the flesh, and Romano's account of despair. What I hope to accomplish here, then, is to secure the level of phenomenological analysis for what follows—one that is not totally foreign to phenomenology, but which has received little explicit attention. In brief, while I argued from a Humean point above, I want here to resist Hume. It is the case that one never experiences a unity to consciousness, but it is not the case that consciousness is an utterly confused succession of events. There are structures or patterns of consciousness that dominate for some time, and recur if not regularly then at least often, without implying any unified subject as their ground. These are what I call "patterns of consciousness." The path that I am going to take to this level of analysis will proceed through an initial example, the erotic pattern, and then turn to a retrieval of Heidegger's own analysis of the pattern of inquiry in *Being and Time*.

To prepare the way to the initial example, however, a caveat proves necessary here. In Husserlian phenomenology, the account of inner time-consciousness proves to be the primordial level of phenomenological reflection. In what follows, however, I do not take this to be the case. Rather, I argue that reflection on patterns of consciousness would advance phenomenological inquiry further, and it is precisely this point that completes the analogy with Galois' Revolution. This position would seem to be at odds with our foregoing approval of Sartre's argument that consciousness is in no need of a unifying ego, since the unity of inner time-consciousness proves sufficient. How is this not a contradiction here?

The answer is that the contradiction is merely apparent. The reason for the supposed primacy of inner time-consciousness, as Zahavi points out, is that phenomenology is fundamentally a reflective enterprise.⁴⁴ In order to assess whatever structures first-person consciousness might have, one must reflect on them. Yet, reflection itself presupposes both

memory and what Husserl calls retention, which makes up part of the “thick” lived present. To account for inner time-consciousness, then, is to account for the conditions for the possibility of reflection, and hence, on the conditions for the possibility of Husserlian phenomenology in general. The present point, however, is that this phenomenological account of inner time-consciousness may stand quite apart from its claim to phenomenological primacy. What in fact grants that primacy is Husserl’s adherence to his various versions of the principle of principles. This is to say, it is only if one supposes that the givenness of phenomena itself constitutes the ground for truth that one can argue that what is most fundamental for reflection is at the same time most fundamental for truth. For it is only in that case that one encounters in the phenomenology of inner time-consciousness the most fundamental level of truth or givenness. By rejecting this principle, however, one can still hold that the account suffices on its own to individuate consciousness, and this is all that was claimed above in approval of Sartre’s argument. The present account is free, then, to reflect on patterns of consciousness without taking the phenomenology of inner time-consciousness (or any other proposed argument, such as space) to be their ground.

What I want to isolate, here, is a level for phenomenological reflection, a level that stands between acts and a total account of personhood. Perhaps the choice of another pattern of consciousness, such as hunger would have worked as well, though this too would have had its own shortcomings. What follows, then, is meant to be exemplary for this specific aim, and not a total account of eros, which would certainly require a work of its own, or even a total account of the erotic pattern of consciousness, which would deserve a full chapter. As I have done already, I shall draw freely from previous phenomenological descriptions, though now I shall also make use of literary examples.

García Madero is a poet in Roberto Bolaño's *The Savage Detectives*, the work that gained him his international reputation as the first Latin American author to definitively step beyond the shadow cast by Gabriel García-Márquez. Save for his untimely death, Bolaño seemed poised to receive the Nobel Prize in literature for his work, and it is no understatement to claim that his infra-realist style marks a genuine literary advance. More than this point, however, this same style also makes it suitable for phenomenological analysis, since he does not interject, as García-Márquez does for example, any unrealistic elements into his stories. The fictional poet's journal entries, i.e. García Madero's, make up the first portion of the work, which is set in Mexico in 1975. He is socially awkward and quite undirected in his life's aims. The result, as one can imagine, is that his relations with women are rather haphazard affairs, which often end badly. The following is his first erotic encounter, which is with a waitress at the bar Encrucijada Veracruzana.

We went into a kind of long, narrow storage room piled with cartons of bottles and cleaning supplies for the bar (detergent, brooms, bleach, a squeegee, a collection of rubber gloves). At the back stood a table and two chairs. Brígida motioned me toward one of them. I sat down. The table was round and its surface was covered with gouges and names, mainly illegible. The waitress remained standing, less than an inch from me, watchful as a goddess or a bird of prey. Maybe she was waiting for me to ask her to sit. Touched by her shyness, I did. To my surprise, she proceeded to sit on my lap. The situation was uncomfortable and yet in a few seconds I realized with horror that my instincts, taking leave of my mind, my soul, and even my most shameful wishes, were stiffening my dick to the point that it was impossible to hide. Brígida

surely noticed the state I was in, because she got up and, after studying me from above, offered me a blow job.

“What...” I said.

“A blow job, do you want me to give you a blow job?”

I looked at her blankly, although the truth, like a lone and flagging swimmer, was gradually making some headway in the black sea of my ignorance. She stared back at me. Her eyes were hard and flat. And there was something about her that distinguished her from every other human being I'd known up until then: she always (wherever you were, whatever the circumstances, and no matter what was happening) looked you straight in the eye. Brígida's gaze, I decided then, could be unbearable.

“I don't know what you're talking about,” I said

“Baby, I'm talking about sucking your dick.”

I didn't have time to reply, which was probably all for the best. Without taking her eyes off me, Brígida kneeled down, unzipped my pants, and took my cock in her mouth. First the head, which she nibbled, the bites no less disturbing for being light, and then, showing no signs of choking, the whole penis. At the same time, she ran her right hand over my lower abdomen, stomach, and chest, slapping me hard at regular intervals and giving me bruises I still have. The pain probably helped make the pleasure I felt even more exquisite, but it also prevented me from coming. Every so often, Brígida would lift here eyes from her work, although without releasing my member, and searching for my eyes. Then I would close my own and mentally recite random lines from the poem “The Vampire,” which later, when I reviewed the incident, turned out not to be lines from “The Vampire” at all, but an unholy mixture of poetry from different sources, my uncle's pronouncements, childhood memories, the faces of actresses I loved in puberty (Angélica

María's face in black and white, for example), a whirlwind of spinning scenes. At first I tried to shield myself from the slaps, but once I realized that my efforts were futile, my hands went to Brígida's hair (dyed a light chestnut color and not very clean, as I discovered) and her ears, which were small and fleshy but almost unnaturally tough, as if they weren't made of flesh and blood at all, only cartilage or plastic, or no: barely tempered metal, from which hung two big fake silver hoops.

When the end was near, and in order not to cry out I had raised my fists and was shaking them at some invisible being slithering along the walls of the storage room, the door opened suddenly (but silently), and a waitress's head appeared, a terse warning issuing from her lips:

"Look out!"

Brígida immediately abandoned her task. She got up, looked me in the eyes with an expression of great suffering, and then, pulling me by the jacket, led me to a door I hadn't noticed before.

"See you next time, baby," she said, her voice much throatier than usual, as she pushed me through the door.

Suddenly, I found myself in the toilets of the Encrucijada Veracruzana, a long, gloomy, rectangular room. I stumbled around a little, still dazed by how quickly things had just happened.⁴⁵

This scene, strange though it is, exemplifies most of the points I have in mind to discuss here. The first concerns a point that Merleau-Ponty addresses when he begins his chapter on the body in its sexual being in *Phenomenology of Perception*. There, he is immediately concerned to confront the naturalist charge that everything sexual or erotic is simply a matter of bodily

response, something that is unintelligible apart from its biochemical (or perhaps behaviorist) explanation. Something like the naturalist account would seem to explain why García Madero has a sudden erection despite his intentions and with a rather embarrassing result (one learns earlier in the work that García is embarrassed by his erections). But as Merleau-Ponty points out, this kind of explanation fails to explain sexual incapacity, which includes not only impotence but a weakening of the ability to feel any kind of satisfaction—something that can range from mere sexual boredom to the pathological. To address the erotic, one must first grasp that it is neither wholly explainable by physical process, nor that it is analyzable into “a mosaic of affective states, of pleasures and pains each sealed within itself.”⁴⁶ Rather, and this is a second point, “the smallest sensory datum is never presented in any other way than integrated into a configuration and already ‘patterned.’”⁴⁷ It is quite abstract to speak of sensation in general, as Hume or Locke do. One’s perceptions are always bound to a “pattern” or gestalt. They have a bodily basis, following from one’s bodily movements, and they occur in a bodily dynamism that exceeds that of the manifold of sense contents and yet somehow unites them. Third, I note that they do not so much occur in a stream of consciousness, as if conscious acts simply followed one another without connection as molecules of water do in a river, but in a temporal succession that is marked by a direction, or effort.⁴⁸ García’s was, until an unexpected turn of events, to continue a conversation begun in the bar in a more private setting.

None of these three points, however, brings one to the heart of the erotic pattern of experience. What must be understood is the way in which this pattern of conscious experience *transforms the significance* of sense experience, memories, and imagination. I begin by considering the integration of these other conscious experiences. García recalls a poem “The Vampire,” which before he had found erotic. The memory, however, is shot through with other

memories and linked imaginatively. Furthermore, he recalls and imagines all this while only marginally attending to his sensory experience, which is at this point dominated by physical contact, both pleasurable and painful. *The erotic pattern of consciousness, then, is a linked set of intelligible relations that exists among different intentional and non-intentional conscious experiences.* The pattern, as is known from the abrupt end of the affair, can certainly exist concurrently with other patterns, though the more intensely one is overtaken with it, the more one's consciousness of these other patterns (e.g. hunger or wonder) subsides.

Still, what makes for the *significance*, the *meaning* of the erotic pattern? To answer this question, I want to prepare the way with a preliminary question: how can there be meaning in this pattern of consciousness? With this question one is returned to García's unexpected erection. He already notes that Brígida stands too close to him—less than an inch away. The physical proximity of bodies already speaks volumes about their interaction, since they stand clearly within each other's personal space. This significance is possible, as Merleau-Ponty famously argues, only because the body is immediately meaningful. "I do not see anger or a threatening attitude as a psychic fact hidden behind the gesture, I read anger in it. The gesture *does not make me think* of anger, it is anger itself."⁴⁹ This means, plainly, that the erotic pattern is a train of thoughts that integrate various physical experiences as well as the significance of both verbal and non-verbal exchange. It both makes use of and *supervenes on* non-conscious and biological bodily patterns, since, and this may be a startling "anti-Romantic" conclusion, the erotic pattern is only possible at all because it is intelligible through and through. One person looks at another and glances away, or one may linger passing one's eyes over the other—recall that it was Brígida's gaze that contributes to García's flustered response to her proposition. In

either case, there is a non-linguistic communication such that *one understands what these actions mean*.

This is not to say that the erotic pattern is logical, in the sense that one finds in a (first-order) deductive argument, but only that the meaningfulness of human exchange, afforded by the immediately signifying character of one's body, is intelligible, is understandable, and it is this understandability that makes the erotic pattern possible at all. This pattern, then, cannot be something "merely animal," but is experienced for humans *as human*, and hence intelligibly.⁵⁰ This has both its benefits, for example by making the significance of a loving encounter deeper, and detriments, since it is precisely this human quality of the erotic pattern that make rape such a humiliating and de-humanizing experience. Recognizing this human (intelligible) character of the erotic pattern, then, allows one now to take another step in approaching its overriding significance, namely by allowing one to articulate the scope of this meaningfulness.

To begin, note that it is only with meaning that erogenous zones are possible. One understands that the pressing of lips together *means* something. To return to the literary example, one can see that the erotic pattern is present for García *before* any verbal exchange on the matter, and while the pattern can make use of language (or at least signs given through bodily expression—demure eyes, smiles, body posture and position, etc.) the established linguistic significance bears no immediate or necessary relation to its meaning. This is, of course, why couples can be engaged in this pattern without ever exchanging names or even words. Additionally, this is why one can use words to contradict one's body language, or the reverse. There is an interplay here between the exposed and the unexposed of one's desires, something that makes up the flirtatious exchange, whereby one holds open the suspense (Levinas called it "profanation") of one's commitment, desire, and level of engagement.⁵¹ This "yes ... and no"

quality of flirtation is analogously exhibited in the meaningful quality of specifically erotic nudity, since not all nudity is erotic (e.g. medical or artistic nudity). One recalls here why the strip tease is more erotic than the simple nude, though the (especially cultural) context of these acts may alter their meaning, and hence erotic character. At this point, as well, one notes that the gendered significance of one's body is ineliminable from one's erotic experience, and this may well have resonance with how one understands one's personhood (gay, straight, bisexual, and even these categories stand oddly for the intersexed).

Most importantly in this range of meaning, perhaps, is that the intelligible aspect of the erotic pattern opens one to *I-contact*, or contact with another *person* (*ipseity*). And while the present impersonal phenomenological analysis here precludes saying much on this score (I shall return to this point when I have developed account of character and personhood), I note that it is through the meaningfulness of erotic exchange that one is able to access the other, differently, of course, than how the other experiences him or herself in first-person consciousness, but it is access nonetheless. Indeed, there are aspects of this meaningful exchange that may exceed what the other knows or understands of him or herself. This is because in human interchange one can never really keep all to oneself, but is always extending, flowing over into the domain of others. This does not mean that all erotic exchanges are deeply significant (our example with García certainly is not), but it does account for why they can be. In this way erotic nudity takes on the quality of personal (*ipseic*) nudity as well—a kind of fragility and vulnerability before another and with another, which alters the significance of the erotic exchange. In cases where *I-contact* remains superficial, one never really gets to know the other, save through the erotic experience, and in this way one recognizes that while there is an identifiable pattern of conscious experience here, its openness to alterity is hardly sufficient (nor even necessary) to secure personal identity.

I want now to try and bring these remarks together to isolate the level of analysis that is meant by a pattern of experience as well as the significance of the erotic. The pattern here “is a set of intelligible relations that link together sequences of sensations, memories, images, conations, emotions, and bodily movements” (I 206). What makes it erotic is *not* an intention to reproduce, just as an intention to sate one’s hunger does not exhaust the conscious pattern of hunger, which is perhaps best exemplified in cases of dithering between food choices. Indeed, the whole sequence for García begins unexpectedly, with no thoughts about reproduction, and ends even without ejaculation as he stumbles into a bathroom, where, in the text that continues, he has to be reminded by other men that he still has his penis hanging out of his pants. To borrow a term from Levinas, though not exactly its sense, one can say that the erotic pattern is characterized by *voluptuosity, which is its own sort of human aim, indefinable in terms of other aims.*⁵² It is a kind of lusty, lascivious eagerness for pleasure, a desirous wantonness, which need not culminate in orgasm, and varies in levels of intensity. The moment of the erotic and the place of its occurrence are defined with respect to the voluptuous. One finds that the erotic pattern, by intelligibly linking bodies, sensations, memories, images, emotions, and conations recurrently, sheds light on how a couple (or perhaps more) makes sense of their surrounding world. Words and acts, places and things, people and bodies take on significance with respect to this exchange and not the reverse. This is why it may take some time to enter the pattern, or once one has exited, it becomes difficult to evaluate the matter as one might have (García’s dazed state, or: What did I see in him/her?).

While the foregoing is hardly a complete account of the erotic pattern—it may even be substantially wrong, though I hope it is not—it should be sufficient as an example to establish what is meant by a pattern of experience, which links numerous aspects of one’s first-person

conscious experience (sensations, memories, images, conations, etc.) intelligently through their cyclical recurrence. Consistent with an impersonal phenomenology, a pattern of experience does not require that one postulate a unity at its center in order to grasp that it is a regularly recurrent pattern. In fact, the great merit of patterns of experience is that they are compatible with phenomenal self models, but at the same time have their own kind of stability that enables one to reflect on their structural character by their operations in first-person (one-level) consciousness. So it is that it is precisely by establishing the existence of patterns of consciousness that the Galoisian Revolution is completed, since they provide the operations about which invariance is claimed. I hasten to add, however, that at this stage I have only outlined the how this revolution is to be completed. What is missing here, critically, is a full exploration of the structures of conscious acts and especially that structure that will prove critical for a phenomenological hermeneutic response to Badiou and Meillassoux.

A résumé of the present chapter's efforts, then, is as follows. First, if the foregoing arguments are correct, then a novel distinction between phenomenology and hermeneutics has been clearly articulated, namely that the latter reflects on the operational invariance of the former's first-person experiences. The Galoisian Revolution thus makes it clear that the supposed debate between the phenomenological "purists" and "impure" hermeneuts misses the point, since the advance made by hermeneutics was never primarily about such epistemic concerns, but instead about the significance of phenomenological descriptions and the uses to which they may be put. Additionally, this revolution shows both that the principle of all principles is inaccurate, and that knowing is *not* like some kind of intuition. One immediate consequence of this latter point is that any phenomenological approach that relies on intuition as the primary form of epistemic warrant, such as that pursued by Jean-Luc Marion, is deeply

misguided. Another follows for post-modern critiques of such phenomenologies, which argue that such intuitions are always “mediated,” or “impure,” or presuppose something prior, so that at the heart of phenomenological experience is a kind of *Abgrund*. I have in mind here particularly Jacques Derrida’s argument in *Speech and Phenomena*. Since intuition cannot be the primary warrant for epistemic claims, criticizing it *does not* result in *différance*.

Second, despite the fact that both Husserl and Sartre rescinded their original insights into impersonal phenomenology, the work of the present chapter has found secure grounds for its pursuit. It seems to me to be the case that both these thinkers were forced to revoke their support for this position, and against their own arguments, precisely because they lacked the complementary notion of a pattern of consciousness. Without any similar notion it is difficult to maintain just what one’s descriptions are *of*, so that eventually the dative of manifestation returns some kind of substantial “minimal subject” as Zahavi would claim.⁵³ Beyond showing the illicit character of such a notion, the present impersonal phenomenology is able to avoid the long standing and well known critique that phenomenology is committed the history of ontotheology, or equally, Meillassoux’s critique of correlationism.

Third, I have provided a (corrigible) phenomenological description of the erotic pattern of experience. I do in fact hope that the invariant features identified prove to be correct. If they are, then clearly this description suggests that a number of rather famous phenomenological accounts of eros are in some way misguided, such as those provided by Levinas in *Totality and Infinity* and Marion in *The Erotic Phenomenon*. Eros need neither lead towards paternity nor charity, though it *does* serve to provide access to the Other in a way that may be beyond even the Other’s own awareness. Beyond this point, however, it establishes in a concrete way how one can undertake an impersonal phenomenological description. It thus serves as an active “test

case” for the wager of the present essay: that it is possible to develop a third model for hermeneutic reflection by returning to phenomenology. This possibility is made available by the impersonal phenomenology (in the broad sense) outlined here, and to which Ricoeur had no access. While he was forced, then, to look only to signifying models, the path is now open to look to a model which describes first-person consciousness.

5

A Phenomenology of Inquiry

My aim in the present chapter is to provide a third model for hermeneutical reflection—to provide it at least in schematic form. This model is a phenomenological model. It is one that is appropriated for hermeneutical purposes, and it is one that will have proven worthwhile if I can show that it resolves at least the remaining concerns that sustain the tasks of infinite thought.

There is some groundwork that this model presupposes. I have argued that hermeneutic philosophers both can and must make selective use of first-person consciousness for the reason that first-person consciousness cannot be reduced to other forms. One's access to these conscious phenomena is direct, but at the same time "theory-laden" and corrigible. The directness of one's access only means that it does not proceed through other levels of description (e.g. third person). Furthermore, I have argued that for hermeneutic phenomenologists, that to which one attends is not primarily a single action, but a body of intelligible relations that link sensations, memories, images, conations, emotions, and bodily movements through their acts and recurrence. Such a level of analysis in no way presupposes a unifying subject, but only an impersonal field ordered and unified on its own. Finally, if I have been forced to expend some effort to establish these points, it is because phenomenology, unlike hermeneutics, has given primacy to the givenness of experience as the source of knowledge and truth, with result that it falls prey to Meillassoux' critique of correlationism. In order to avoid this criticism, in order to remain within Ricoeur's hermeneutic framework, it was necessary to establish the way hermeneutics effects a Galoisian Revolution with respect to the operations and operational invariance of first-person consciousness. Yet, even by establishing the appropriate level of

phenomenological analysis, namely patterns of experience, I have only just begun to establish the operational invariance of these conscious acts.

As a hermeneutic philosopher, I shall follow Ricoeur's lead and develop the third model for phenomenological hermeneutic reflection in dialogue with another thinker. My dialogue partner this chapter, another of my masters in philosophical thought, is Lonergan. Here, I hope to retrieve what he has called "cognitional structure" as an impersonal phenomenology of human inquiry. In what follows I plan to lay out this structure generally, though I caution that the significance of what is established cannot be properly understood until the argument is at least generally complete, which will require the next chapters as well. I shall, along the way, discuss certain notions, such as "virtually unconditioned judgments," and these will inevitably sound like a certain return to neo-Kantianism. They are not, and in the final sections, I address the structured relations among these acts, as well as provide my own defense for one of Lonergan's central contentions: that human beings can ask questions about anything, that nothing is beyond our questioning reach. I stress that it is my own defense, however, since it is not entirely clear what Lonergan's position on the matter was, and the implications of my defense are rather serious. In a line, my defense is committed to the strong claim that the infinite dimension of human reason, the infinity of the desire to know, is something that is achieved historically. While I shall make clear that this historicity in no way prohibits humans from achieving knowledge of the absolute, at least one implication is that the human capacity to reason is an achievement of the human spirit, in time and from certain spaces. In the final section, I conclude by reviewing the grounds that underpin my central contention of this chapter: that this phenomenology of inquiry, that what Lonergan called cognitional structure, can serve as a third model for an infinite phenomenological-hermeneutics.

1. The Inquiring Pattern

I have already presented a pattern of experience both as an example of what was intended by the term, and to show that a dimension of consciousness exists that has often been overlooked by philosophers. The account of cognitional structure Lonergan articulates may be seen to be at work in many of these patterns of consciousness, and it must be kept in mind that these patterns often operated simultaneously. Yet, the experience of inquiry, of puzzlement, insight and reflection, occurs most saliently in the inquiring pattern. And though few phenomenologists have averted to this point, Heidegger at least was well aware of it. Furthermore, he was aware of it *precisely as a pattern of consciousness*. I begin my proposal for a third model of hermeneutic reflection, then, by looking at Heidegger's insights on this matter.

When most commentators examine the second section of *Being and Time*, they note is the way in which inquiry must be circular. "If we must first define a being in its Being, and if we want to formulate the question of Being on this basis, what is this but going in a circle" (BT 7/27)? What they address is how this circularity avoids viciousness: one "can determine the nature of beings in their Being without necessarily having the explicit concept of the meaning of Being at one's disposal" (ibid.).¹ The inquiry proceeds as a matter of articulating what one already pre-comprehends from one's average understanding of Being. The move from vague to articulated understanding blocks vicious circularity.

While this account is not wrong, it does little to explain why Heidegger draws so many *other* distinctions here. Why does he begin, for example, with the two following points: "Any inquiry, as an inquiry about something, has *that which is asked about* [*sein Gefragtes*]. But all

inquiry about something is somehow a questioning of something [*Anfragen bei*]. So in addition to what is asked about, an inquiry has *that which is interrogated* [*ein Befragtes*]" (BT 5/24). What is the difference between that which is asked about, *das Gefragte*, and that which is interrogated, *das Befragte*? The German terms, just like their English counterparts, have no rigorous distinction in ordinary speech. Furthermore, both do the job of showing that an inquiry is always guided beforehand by what is sought. Why double this point? And as if he wants only to compound the problem, Heidegger goes on to triple the distinctions in the following statement: "[i]n the question which we are to work out, *what is asked about* is Being—that which determines beings as beings, that on the basis of which [*woraufhin*] beings are already understood, however we may discuss them in detail" (BT 6/25-6)?² Here *das Woraufhin* appears as distinct from *das Gefragte*, and if it were to be assimilated to *das Befragte*, this would do little to explain why Heidegger continues to use all three terms. I shall follow Heidegger a little more closely then to try and unravel the need for these distinctions.

A clue to their unraveling is in the following sentence: "[i]n so far as Being constitutes what is asked about [*das Gefragte*], and 'Being' means the Being of beings, then beings themselves turn out to be *what is interrogated* [*das Befragte*]" (BT 6/26).³ One can see clearly here that the distinction between Being and beings corresponds to that between *das Gefragte* and *das Befragte* as terms of inquiry. Looking back to the use of *das Woraufhin*, then, one can see that it corresponds to the meaning of Being, the third thing that makes up the difference between Being and beings. Heidegger's hermeneutic circle, then, not only articulates what was previously comprehended vaguely, but also links the object of inquiry in the questioner herself. "Questioning itself has as a behavior [*Verhalten*] of a being, [namely] of a questioner, its own character of Being" (BT 5/24).⁴ The hermeneutic circle, then proceeds through what Heidegger

is here designating by the “*Verhalten*” of a being. *This behavior is what I mean by a pattern of consciousness, by a specifically inquiring pattern, and it is what I want to retain.* What, then, is the present argument forced to adapt in order to make the turn to infinite hermeneutics?

Following Ricoeur, by which I mean following in the wake of Cantor, I must refuse to draw Heidegger’s distinction between *das Woraufhin* and *das Gefragtes*, since this much constitutes the “short” road of hermeneutics. The result, of course, changes the relation between the terms in the remaining distinction as well. Whatever difference there is between beings and Being can only be understood through the inquiry.

One can understand the inquiring pattern above all, then, as a pattern of consciousness in which one is oriented to that which is to be found out (*das Erfragte*). One could say, in Kantian terms, that consciousness is directed to the unknown = x of one’s investigation (though there may be multiple answers to a question, perhaps inexhaustibly so). No distinction between analytical inquiry and meditative inquiry is to be found structurally here. One notes additionally that there is no understanding *at all* in naming *das Erfragte* in an inquiry. Rather, the term only designates that one knows that one *does not know* something. That which is to be found out is not known vaguely; it is not known at all. This point is critical, since it establishes the grounds on which one may claim that absolutely new knowledge may emerge, and so it is this point that frees hermeneutics from the problem of gaining a critical distance on one’s tradition. I do agree that there must be a relation to the known in order to designate what one does not know, but this kind of relation is nothing like an ability *to use* the word ‘is’ while being unable *to define* it. It is rather here that one finds the need for a wager in inquiry. For now, however, since I mean only to capture the pattern of inquiry, I leave the nature of this relation undefined.

Following Heidegger more positively, I agree that there is a qualitative difference between asking just casually, and inquiring explicitly. In the latter case, one notices a difference in the level of intensity, and duration of the inquiry. Furthermore, the character of the inquiry is often altered both by one's own training in a field and the use of precise terms and symbolism (I 209). This pattern breaks with attention to strict sensation and bodily patterns (such as the erotic) *by transforming their significance*. It does this by drawing on perceptions, memories, schematic representations, and imagination as might be pertinent to the inquiry. Furthermore, these memories and imaginative anticipations need not rise to the threshold of thematic consciousness, but work in collaboration with one's bodily and psychic patterns (e.g. recall the phenomenon that psychologists call "incubation" in which one's unconscious may "work" on a problem while one sleeps by organizing the elements necessary for an insight). Finally, *there is a fundamental tension that sustains this orientation*, much like the way in which voluptuousness sustains the integrated recurrence of the erotic pattern. It is the *feeling* of being bothered by a question, and it is released only in the 'eureka!' of an insight. As an example, one could think of the tension one felt at the beginning of this section when faced with Heidegger's numerous distinctions that remain unaccounted for by most commentators, and then the release that occurred (hopefully!) with the explanation that followed. Still, I note, this tension may return if one later recognizes the shortcomings of one's insight, or when one asks further questions that follow from the solution to the first. In this last case, then, one has encountered the cycle of inquiry, and not simply inquiry as a pattern of consciousness. And it is at this point that one is brought from the inquiring pattern, as an experience of consciousness, to the matter of cognitional structure itself, which is the topic I should like to address now.

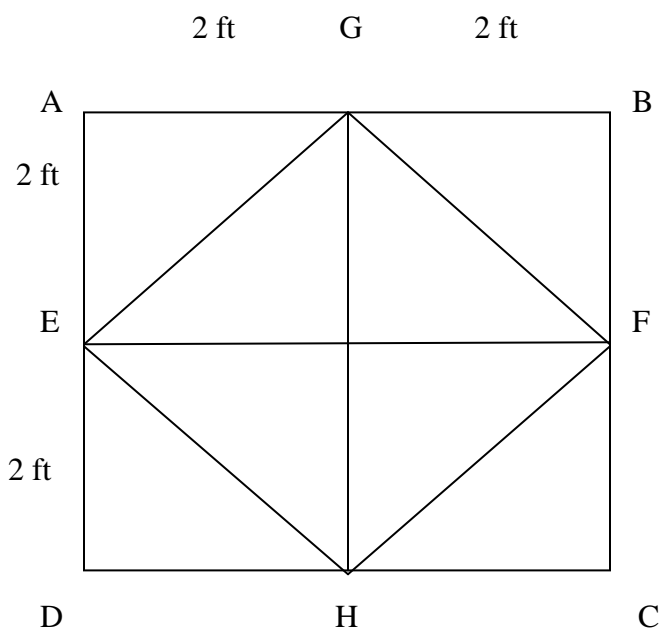
2. Insights

It is always easier to illustrate an insight than it is to describe one, and even for this latter task the retention of an illustration always proves helpful.⁵ Recall, then, the famous scene in Plato's *Meno* where Socrates discusses what has come to be known the theory of recollection with Meno's slave boy. I am less interested in Plato's "theory," something always debated among Platonic scholars, than in what happens, the drama of the dialogue. The point at which I want to focus attention is the "apoira" the boy reaches and its resolution.

The scene is set as follows. Socrates begins by discussing with the boy what one would now call the area of a square. He first wants to know what the area of a 2x2 square would be, and with a little nudging the boy produces the answer four. Socrates asks: if we should double the lengths of the sides, producing a 4x4 square, what would the area be? At first the boy merely doubles the product and answers eight, but with some help comes to sixteen as the correct answer. Socrates then asks a particularly difficult question: "On how long a line should the eight-foot square be based?"⁶ In other words, if the area of a square is eight feet, what is the length of one of its sides? This is a difficult question for two reasons. First, it reverses the order of operations. Rather than asking the boy to find the product, Socrates gives him the product and asks for the initial lengths. Second, while formerly the answers were all expressible as rational multiples of the original lengths, here that is not possible. This latter task is all the more difficult since the Greeks had not developed a systematic account of irrational numbers.⁷ Given the difficulty of the task, the boy does his best and picks the number between two and four, the lengths of the sides of the other squares considered, and produces the answer three. When Socrates shows him that this yields a square with an area of nine feet squared, and poses the

question again, the boy famously responds: “By Zeus, Socrates, I do not know.”⁸ This state of aporia is one in which the boy knows of his ignorance, and Socrates takes this to be an advance on his previous state, namely “*amathia*,” which is a kind of Platonic technical term for ignorance of ignorance.

How, then, does Socrates release the boy of this state? First, Socrates constructs a 4x4 square, which is subdivided evenly into four 2x2 squares. In the text that follows, it will be helpful to refer to the following figure.



Socrates: Does not this line from one corner to the other cut each of these figures in two?—Yes. [i.e. Socrates draws a diagonal in each of the 2x2 squares, by lines EG, GF, FH, and HE, and connects their end points to form the diamond EGFH within the larger 4x4 square ABCD]

Socrates: So these four are equal lines which enclose this figure [the diamond]?—
They are.

Socrates: Consider now: How large is the figure?—I do not understand?

Socrates: Within these four figures, each line cuts off half of each, does it not?—

Yes. [Socrates wants to know how many of the triangles “cut off” from the inside there are inside EGFH.]

Socrates: How many of this size are there in this figure?—Four.

Socrates: How many in this [i.e. any of the interior squares]?—Two.

Socrates: What is the relation of four to two?—Double.

Socrates: How many feet in this [i.e. EGFH]?—Eight.

Socrates: Based on what line?—This one.

Socrates: That is, on the line that stretches from corner to corner of the four-foot figure?—Yes.—Clever men call this the diagonal, so that if diagonal is its name, you say that the double figure would be based on the diagonal?—Most certainly, Socrates.⁹

At the point in which the boy points to the diagonal, he does not even have a name for it, but with Socrates help he has been delivered from his state of *aporia* into a state of certainty. While the exercise is over for the slave boy, I want now to begin for the present inquiry by reflecting on the slave boy’s experience.

(a) An Initial Phenomenology

To begin, recall that I have already characterized the inquiring pattern of experience by a feeling, a tension that results from the recognition that there is a gap between what one knows and what

one wants to know. This fact of inquiry is something that I take to be beyond all doubt, and the tension it brings I trust is something each person undergone at some point (I 28). This is the state the slave boy is in when he confesses to Socrates, swearing by Zeus at the same time, that he has no idea what the answer is. The release of this tension comes by recognizing at least what appears to be an answer (slave boy's answer: this line), the feeling of euphoria captured by the Greek cry "eureka!" (I have found it!) signals pathetically what is called an insight.

What is perhaps lacking in the slave boy example is the suddenness with which an insight comes, though Plato's concern with *exaiphnēs* elsewhere makes apparent that he was well aware of this characteristic. One can think of other cases, such as Archimedes' insight into the volumetric displacement of water by watching another man enter the public baths, or at least the legend whereby Newton had his insight into gravity by watching an apple fall, in which this suddenness is more apparent. Yet, even in this case the appearance of the suddenness is only diminished, but in no way abrogated by Socrates' helping questions. For when the boy was in the state of *aporia*, and even after drawing the figure and its diagonals, the boy still had no clue what the answer to the question was. It is only when Socrates asks him to reflect on the relation of the diagonals to the other squares that he is able to receive the insight.

Third, and this is a point that has always seemed to support the so called theory of recollection, one finds that the circumstances of receiving an insight depend more in inner conditions than outer. The boy had certainly seen squares and diagonals through them before, but it was not until this case, in which he was already questioning, that he was able to come to this kind of answer. To make a larger point about Greek mathematics, certainly many Greeks had recognized the diagonal as a kind of anomaly to their understanding of *arithmos*, but it was not until Eudoxus developed a different account of proportions that one can say a better account

of irrational proportions was attained. And the world would have to wait until Dedekind's work for systematic insight into irrational numbers to be attained.

Fourth, as the drawing of the squares within squares illustrates nicely, insights pivot between concrete sensations, images, and schemata and abstract notions. The problem here is posed in concrete terms, namely what is the side of a square with an area of eight feet, but the solution, to which the boy merely points, turns on an understanding of the abstract relations of any square with the established area, and indeed more generally to a new understanding of ratios.

Finally, note that once had, an insight passes into the habitual texture of one's mind. This point could not be more aptly demonstrated than with this example, since this is a problem that anyone with a secondary education in mathematics today could solve. What is at first difficult does not take long to become the obvious for the cognoscenti. This is why, whenever one teaches this passage to university students today, one must work to establish what it was that is so puzzling about this example to the Greeks in the first place. There is here something like a forgottenness of ignorance that defines the result of making an insight.

As Lonergan argues, then, the following are five basic features of an insight: it "(1) comes as a release to the tension of inquiry, (2) comes suddenly and unexpectedly, (3) is a function not of outer circumstances but inner conditions, (4) pivots between the concrete and the abstract, (5) passes into the habitual texture of one's mind" (I 28).

(b) Inverse Insights

If insights prove to be critical components to our pattern of inquiry, they are not all alike. I mean not only that the content of each insight varies, or that some are accurate while others prove to be

oversights, but that the quality of insights differs in kind. To prepare the way to these insights, I begin with a note on definitions.

What is quite striking in the slave boy's example is that he is able to make an insight without being able to say what he means. This point, of course, reaffirms my Ricoeurian position that linguistic meaning is derivative.¹⁰ Yet, it also introduces one directly to the matter of definitions. I note, first, that insights pivot between images and concepts and ground the formulation of the latter. But just because they work from these does not mean that they are constrained by them. Second, there is a distinction between nominal and explanatory definitions. By a nominal definition, one can stipulate the meaning of anything one wants. An insight into such definitions, then, is limited to the correct use of these terms. In explanatory definitions, by contrast, one must grasp that to which insights refer. The insight into the "diagonal" then is this latter kind of insight.

From a contemporary mathematical perspective, however, something is not grasped well by the term "diagonal." The term remains descriptive insofar as it only designates how the line appears to us, and not its relation to other lines and whole numbers. With respect to this latter case, it would have been termed an "incommensurable" by the Pythagoreans. One could argue that it is explanatory, but that it is limited since its relation is designated only negatively. Still, this approach would not address a more important matter: one insight may follow from another, so that insights may cluster. Greek mathematicians, for example, were aware of pi and its equally incommensurable status. Using the dimensions of the diagram above, this means that it was recognized that there existed no proportion of the sort $AE : EG :: m : n$, such that m and n are whole numbers. To come to this conclusion, and this is the important notion, an inverse insight is needed.

To understand what an inverse insight is, consider the following variation in Plato's dialogue. What if Socrates had asked the slave boy the following question: "For a square of eight feet [in area], which proportion between lines and numbers defines the ratio of that square's side and its diagonal?"¹¹ Here, instead of pointing to a line, the only answer the slave boy could have given is: "There is none." This answer forces reflection on a matter already implicit in the foregoing. For any question there is an anticipated intelligibility, by which I mean the content of a direct insight. Most of the time, when the tension of inquiry is released, these direct insights are the type of insight to which one comes. These insights may cluster, and they may even deny that previous insights are accurate. But in neither case will one have an inverse insight. In its most basic form, then, an inverse insight is the denial of an expected intelligibility (I 44). Lonergan makes much the same point taking surds or n^{th} roots as an example, and of course switching from lines, numbers, ratios and proportions to numbers and equations:

Thus, the square root of two is some magnitude greater than unity and less than two. One would expect it to be some improper fraction, say m/n , where m and n are positive integers and by the removal of all common factors m may always be made prime to n . Moreover, were this expectation correct, then the diagonal and the side of a square would be respectively m times and n times some common unit of length. However, so far from being correct, the expectation leads to a contradiction. For if $\sqrt{2} = m/n$, then $2 = m^2/n^2$. But if m is prime to n , then m^2 is prime to n^2 ; and in that case m^2/n^2 cannot be equal to two or, indeed, to any greater integer. The argument can easily be generalized, and so it appears that a

surd is a surd because it is not the rational fraction that intelligence anticipates it to be (I 45-6).

What is the significance of these inverse insights? As Lonergan notes: “[n]ot only do they eliminate mistaken questions but also they seem regularly to be connected with ideas or principles or methods or techniques of quite exceptional significance” (I 50). The examples Lonergan covers concern the significance of Newton’s first law of motion and Einstein’s special theory of relativity. One could extend these points to include independence proofs in mathematics, or the significance of Gödel’s incompleteness theorems for Hilbert’s finitistic project. To take some philosophical examples, one might think of the significance of Thomas Kuhn’s philosophy of science with respect to the received view on the separation of the “context of discovery” and “context of justification,” or Badiou’s sense of mathematics with respect to Heidegger’s account. Indeed the whole thrust of post-Cantorian philosophy is to deny the expected intelligibility of positivists and Enlightenment thinkers who asked after an explanation of how every effect had a cause, and did not suppose that there may be fundamental anomalies in the way being is structured. *The significance of inverse insights, then, concerns their intimate connection to revolutions in thought.*

(c) The Empirical Residue

There remains a final topic that both needs to be introduced now, but cannot yet be explained fully, namely the topic of empirical residue. The case of Socrates and Meno’s slave boy would

work here, but it proves unsuitable for expository purposes. I shall introduce, as a result, one final example to help clarify the point.

In 1777 Antoine Lavoisier announced in his papers what has been taken to be the chemical revolution. While he thought that he had discovered oxygen, it is perhaps better to claim that he had produced the oxygen theory of combustion, since the principle of acidity was not extricated from the matter until 1810 and the caloric component of the discovery lingered until the 1860s. Yet, what I shall focus on here is not the technicalities of this discovery, but a lingering philosophical problem attached to it.

Addressing this case Kuhn notes quite rightly that long before his discovery of the gas, “Lavoisier was convinced both that something was wrong with the phlogiston theory and that burning bodies absorbed some part of the atmosphere,” which he made clear in a letter to the Secretary of the French Academy in 1772.¹² The work on oxygen, then, only allowed him to add structure to this notion. Kuhn then concludes that advanced “awareness of difficulties must be a significant part of what enabled Lavoisier to see in experiments like Priestley’s a gas that Priestly had been unable to see there himself. Conversely, the fact that a major paradigm revision was needed to see what Lavoisier saw must be the principle reason why Priestly was, to the end of his long life, unable to see it.”¹³ What then was it that Priestly saw as dephlogistonated air and Lavoisier saw as oxygen (given the historical caveats on his actual chemical discovery)?

The answer to this question requires an inverse insight. The question of “seeing as” of course raises the question of theory-ladenness, something to which I have already said I subscribe. There is something disastrously wrong with this notion, however, which is what I aim to correct here. As the term as normally used, it is taken for granted that one’s access to being or reality is through perception (in some suitably broad sense). Those who accept theory-ladenness,

then, tend to fall into a form of idealism or correlationism. They do so because they accept that perception would be one's only link to reality, but that one is cut off from this source by some conceptual screen—usually metaphors concerning the glasses on one's nose are applied at this point. Only giving an adequate account of the coherence of one's ideas, then, enables one to reach reality. What must be resisted about this account, at this point, is two-fold.

First, I affirm that one has access to reality only through the whole structure I am attempting to establish here by drawing on both Ricoeur and Lonergan (and even Badiou!). As Lonergan writes:

it is not true that it is from sense that our cognitional activities derive their immediate relationship to real objects; that relationship is immediate in the intention of being [sc. process of inquiry]; it is mediate in the data of sense and in the data of consciousness inasmuch as the intention of being makes use of data in promoting cognitional process to knowledge of being; similarly, that relationship is mediate in understanding and thought and judgment, because these activities stand to the originating intention of being as answers stand to questions.¹⁴

What this means is that one does have mediated access to reality through the three-fold structure that makes up the post-Cantorian hermeneutic circle. Because it was never presumed that one had immediate access to reality by sensory data, cutting off access to it does not entail any form of idealism or correlationism, and neither does it entail any form of holism (which is really only one more form of correlationism).

Second, both Priestly and Lavoisier did see something, some sensory data, and at a first approximation (and that is all I shall provide here), one can say that such data included the “empirical residue.” Lonergan makes three points about it: it “(1) consists in positive empirical data, (2) is to be denied any immanent intelligibility of its own, and (3) is connected with some compensating higher intelligibility of notable importance,” such as revolutions in thought (I 50). To provide a Badiouian analogue, one could here think of the empirical residue as similar to his inconsistent multiplicity. There is nothing to be understood in it, and to begin, as Hegel does, with the opposition of “here” to “there” is to miss what is empirical about the empirical, as opposed to what is intelligible about it. Insights make use of sensory experience, along with memories, images, concepts, and theories (among other items). Nevertheless, even the totality of all finite insights will not exhaust everything about the empirical (point 2). There is a “residue” and it is a component of all empirical data (point 1). The implications of such residues in this data (point 3) are a matter I shall have to refine later.

4. Reflective Understanding

At this point I have in fact outlined the first and second levels of Lonergan’s cognitional structure. The first of these, encountered in detail last chapter, is experiencing—though this is not to say that it is *mere* experiencing. The second is the domain of understanding, in which one receives either a direct or indirect insight into the data (the givens) of sense. I hope now to provide a schematic account of the third level, namely reflective understanding. I shall prescind for the moment from what is later elaborated in *Method in Theology* especially with respect to judgments of value, since what I aim accomplish is only to articulate this activity and its role

within cognitional structure. As to its more particular character, I shall leave this point unaddressed for the coming chapters where I shall examine in more detail the status of commonsense, logical, mathematical, and scientific judgments.

(a) Reflective Insight

Within the pattern of inquiry, with some care one can discern two fundamentally different modes of inquiry. There is a significant difference, to be discerned by hermeneutical refinement, between questions for intelligence and questions for reflection (I 297). To return to the *Meno* example with the slave boy, Socrates' question "On how long a line should the eight-foot square be based?" is what Lonergan calls a question for intelligence. But one could also ask: "Is this square based on the diagonal, or a length $2\sqrt{2}$?" In this case one asks a question for reflection, and it is only by answering it that the slave boy could come to his certain conclusion. For the latter type of question, then, a "yes" or "no" answer is required, while for the former one is required to produce some kind of content or proposition. For a question of intelligence, it would make no sense to answer "yes" or "no."

Questions for reflection, then, presuppose content, just like questions for intelligence. But while questions for intelligence presuppose sensory data, images, schemata, and other concepts (e.g. physical laws or mathematical principles), questions for intelligence presuppose the content of an insight. Questions for intelligence vary in kind: What is it? Why is that so? How often does that occur (I 298)? Questions for reflection, by contrast, always ask after one matter: Is it so? In this question the "it" is understood to refer to the content of an insight. The

level of reflection, then, completes that of understanding by answering to its functional incompleteness. An insight, after all, may not be worth very much if it is substantially wrong.

In order to answer a question for reflection an insight is required, just as an insight is required to answer a question for intelligence. Questions for reflection, however, have a specifically distinct aim: they aim for judgments (“yes” or “no”) that are based upon insights into the sufficiency of evidence for those prospective judgments (I 304). The critical task, then, is to determine what precisely is meant by sufficient evidence for a judgment to be made. The answer, which is again established on phenomenological hermeneutic grounds, that is by appealing to first-person consciousness, is that it follows a general structure.

The term that Lonergan uses to characterize this general structure is that sufficiency is reached when a prospective judgment is “virtually unconditioned” (I 305). While a formally unconditioned judgment would have no conditions, the virtually unconditioned has conditions, but it is just the case that they are fulfilled. Thus “a virtually unconditioned [judgment] involves three elements, namely, (1) a conditioned, (2) a link between the conditioned and its conditions, and (3) the fulfillment of the conditions” (I 305). What a reflective insight does, then, is to transform the prospective judgment from conditioned and unfulfilled to conditioned and fulfilled.

As an illustration, Lonergan provides an example of logical inference, where A and B each stand for one or more propositions. The deductive form of a virtually unconditioned judgment then is the following:

If A, then B
 But A
 Therefore B (I 306).

In this case the conclusion is a conditioned judgment, and an argument is needed to support it. The major premise “If A, then B” links the conditioned to its conditions. The minor premise, then, affirms the fulfillment of those conditions. It must be understood, however, that *modus ponens* is an *example* of a virtually unconditioned judgment form and not the reverse. There would be numerous shortcomings otherwise, not the least of which concerns the fact that investigation into some of the strongest forms of paraconsistent logic would be a priori impossible, and that the foregoing would amount to nothing more than crypto-logicism.

As a final point that proves to be of some significance, it can now be shown just how Hume’s problem of induction is dissolved. For Hume the problem concerned how one could make the logical connection between a finite number (or even infinite) of discrete occurrences and a physical law that bound all of them. To dissolve this problem two principle points are required. First, note that one implication of the empirical residue is that because “particular places and particular times [i.e. empirical residue] involve no immanent intelligibility of their own, they do not involve any modification of the intelligibility of anything else” (I 52). So there is no problem of going from what is understood in certain sets of occurrences to all sets of occurrences. Second, at work in any analogy or generality “is the law, immanent and operative in cognitional process, that similars are similarly understood” (I 313). This means that empirical dissimilarities in data call into question the applicability of an insight into in one situation to another situation. If there are any significant dissimilarities, then further pertinent questions will emerge. Lonergan elaborates:

Since similars cannot but be similarly understood, generalization itself offers no difficulty. If the particular case is understood correctly, then every similar case

will be understood correctly. If the problem of induction arose because the rest of the particular cases were not inspected, then that problem would be insoluble because the rest of the particular cases are never inspected In fact, the problem of induction arises because the particular case may not be properly understood (I 326).

If the particular case is not properly understood, one is led to recognize that one cannot make a virtually unconditioned judgment. Thus one must complement, modify or even revise the basic insight. Scientists, then, are not engaged in the practice of moving from a few discrete cases to an apriori law, but in understanding a particular case well (so that all other similar cases are equally well understood).

This discussion of “significant differences” and further “pertinent” questions, however, raises the question: just what makes a difference significant and what makes a question pertinent? Of course a question such as this cannot be answered fully here, since I must turn to a more detailed account later, but by way of a provisional answer I would like to turn to the topic of probably true judgments.

(b) Probably True Judgments

There is a middle ground between guessing, in which one affirms no intelligibility, and a virtually unconditioned judgment, in which the conditions for affirming an intelligibility are fulfilled. That middle ground Lonergan calls the probable judgment (I 325). If the guess is

nonrational, the probable judgment is rational, but only approximates its goal of unconditioned intelligibility.

One must take care to distinguish immediately probable judgments from judgments about probabilities. The latter, which concern ideal relative frequencies, are usually expressed in numerical fashion such as: $11/12$ or $91\frac{2}{3}\%$. Probable judgments, by contrast, cannot be expressed in this way, except metaphorically. At a first approximation, what one affirms in a probable judgment is something like the following: while there are still further pertinent questions, this explanation (i.e. insight or cluster of insights) is the best among all contenders.

An important caveat to the foregoing concerning virtually unconditioned judgments, then, is that there are none of these in mathematics, science, and I am inclined to say in logic. While science begins by finding significant correlations among sensed data, these findings remain no more than probable *because there are still further pertinent questions*. As long as these disciplines continue as domains of investigation, then there will be further pertinent questions, hence rendering their judgments only probable.

This status of probability, however, does not preclude one from affirming that the judgments are truly probable (I 328). The self-correcting process of inquiry, whereby the affirmation of one probable judgment requires that one return to the data to form further insights for understanding, does converge upon the virtually unconditioned. As I noted before in argument with Meillassoux: the scientific understanding of the dating of a fossil may change, but one may nevertheless affirm (with revisibility or probability) that these fossils existed before any humans ever did.

What has yet to be specified, however, is what is reached when one affirms even a probably true judgment. If the present account of cognitional structure is to serve as a third

model for hermeneutics, then it must be the case that it is able to establish just what the absolute is, in Meillassoux' sense. In other words, I need to show how, especially given the dynamic character of cognitional structure, it reaches "independent" or "absolute" reality, and at least an initial account of what that reality is.

5. The Absolute

The matter of stating just *how* and *what* it is that one knows when one knows something under the present proposal resolves itself into two principle questions. First, "[w]hy should knowing result from the performance of such immanent activities as experiencing, understanding, and judging?"¹⁵ Second, what does one know when one knows something? Because both these questions bear on the character of being or reality in-itself, as ab-solved from its contingent relations to an individual inquirer, the purpose of this section is to address the absolute.

(a) Formally Dynamic Structure

I have maintained that the inquiring pattern of experience forms a structure. Now it is needed to specify what kind. Structures are intelligible wholes made up of parts. The parts in this structure include, but are not limited to: "seeing, hearing, smelling, touching, tasting, inquiring, imagining, understanding, conceiving, reflecting, weighing the evidence, [and] judging."¹⁶ As argued, however, these acts are unified in the three-level structure of experiencing, understanding, and judging. This is the structure that I have been examining since my discussion on experience in the last chapter, and my discussion on insights and reflective judgments in the present chapter.

What I mean to stress here is that these activities are not related to each other by similarity, but functionally, “[a]s in a motor car the engine is not like the tires and the muffler is not like the differential.”¹⁷ All these acts form what Lonergan terms a formally dynamic structure.¹⁸ His point in suggesting that human knowing is a dynamic structure is that all these parts are not statically structured, but are dynamically engaged with each other. Further, the structure of this dynamic activity of engagement is itself also dynamic, and so makes the structure formally dynamic.¹⁹ This formal dynamism, in short, is what is meant by the self-correcting structure of inquiry.

Why should doing that result in knowing? In more Kantian terms, why is the performance of these activities “not restricted to the immanent content of knowing, to *Bewusstseinsinhalte*?”²⁰ Lonergan’s answer concerns what he terms the “epistemological theorem,” which explains how human “knowledge is intrinsically objective.”²¹ The term “intrinsic,” though problematic when used in other ways, here simply indicates that the criteria of objectivity are taken from nothing other than the dynamic structure of consciousness. Similarly, the term “objective” does not indicate some point of view outside all other points of view, for such a conception would be to lapse back into thinking of knowing in terms of ocular metaphors. Rather, the term pertains to a judgment that proceeds from a reflective insight into the virtually unconditioned. This unconditioned result is nothing more than a fulfillment of the conditioned insight with its conditions. But what is crucial for these conditions to be fulfilled is that humans have an unrestricted intention, or a pure desire to know. The unrestricted character of this desire is expressed in the statement that “there is nothing that we cannot at least question.”²² If this is correct, then the formal dynamism of cognitional structure yields knowledge, because a virtually unconditioned judgment “rests on an unrestricted intention and an unconditioned result.”²³

I pause for a moment to assess this theorem. Can one really question everything about everything? Does one ever have a pure desire to know all that is, which is after all the same as asking whether one has an unrestricted intention of being? I want first to consider a pertinent Lacanian objection. Slavoj Žižek makes it clear that for Lacan, such a notion is preposterous. “Contrary to the notion that curiosity is innate to humans—that there is deep within each of us a *Wissenstrieb*, a drive to know—Jacques Lacan claims that the spontaneous attitude of a human being is that of ‘I don’t want to know about it’—a fundamental resistance against knowing too much.”²⁴ The reason for this is that happiness, understood as the psychological state of contentment for Lacan, is something inherently hypocritical, it is “the betrayal of desire.”²⁵ One can only remain happy so long as one remains stuck in the inconsistency of one’s desire. Knowledge makes us unhappy because it points out this inconsistency. This is why no one wants to know too much, and every “true progress in knowledge has to be bought by a painful struggle against our spontaneous propensities.”²⁶ As usual Žižek illustrates this point with a wealth of examples, of which I mention two. The first concerns “radical” left academics who bombard the political system with demands it cannot fulfill (Full employment! No immigration restrictions!). This way, he argues, they are able to maintain both their privileged position, since they know the demands are impossible and so will not actually change anything, and a clear conscience, since they can feel as though they are doing something important. Explicitly stating this tension in their actions, however, would be precisely the kind of knowledge that would make them unhappy, and so they must cover it up with bluster and wild accusations against any opposition. Second, Žižek considers the USA’s attempt in 1994 to incite Cubans to emigrate. In response, Fidel Castro warned that if the USA did not stop, he would in fact stop preventing the emigration, which is just what he did two days later. The result was that thousands of emigrants

flooded the USA's borders, completely embarrassing the USA since it was forced to turn many away. Again, then, the problem was that the USA was able to maintain its image as a benevolent and welcoming nation—a happy one—only if Cuba at the same time played its part to maintain the hypocrisy of this myth. When it failed to do so, the inconsistency of this myth was exposed, acting much as if a person called out a radical academic who makes impossible demands on the existing political establishments.

Žižek's Lacanian response, then, *accuses anyone who holds to a pure desire to know of being naïve*. I can address this charge in two ways. First, I note that by "desire" Lonergan only means that tension in consciousness that stimulates and accompanies our questioning. Even Žižek admits that people question, that they are bothered or puzzled. So the sense of desire here is simply different from Lacan's sense. To meet the relevant sense of "desire" one would have to show that somehow humans do not question, which enterprise would be self-refuting, since it would suppose a question (*viz.* Do humans question?) in order to argue that they do not. Second, Lonergan was not naïve about the propensity of humans to delude themselves, whether this occurred unconsciously, or on account of egoistic intention, or group allegiance, or failure to recognize the relevant data by making use of common sense knowledge in the place of scientific. Each of these cases concerns what Lonergan called "bias," by which he meant not a preconceived idea, but any interruption in the process of inquiry (I 214). The pure desire to know, then, is only to be understood with an account of how humans turn away from knowledge.

Still, the foregoing responses fail to show that questioning is fundamental and unrestricted in the relevant sense required, namely to gain knowledge. Concerning the matter of fundamentality, then, I note that even remaining stuck in the inconsistency of desire requires knowing *something*, or else one's knowledge could not be inconsistent. This shows that the

desire to remain ignorant is already a secondary phenomenon that presupposes a more basic desire to know. With respect to the matter of unrestrictedness, one might press, how is it possible that one can question everything about everything? Is it not the case that there are some things humans will not ever know, or even be able to question? These questions focus on the possibility of *some absolutely unknown*. Since cognitional structure asks after a known unknown, the thrust of this response is to question whether this structure is adequate to address our most radical possibilities. In response to this concern, Lonergan proposes an argument something like Jacques Derrida's critique of Levinas' account of the absolute Other.²⁷ Derrida wonders how it is even possible to have a relation to what has no relation at all. The Other must be related to the same in at least some minimal sense, otherwise we could not speak, think, or write of it even negatively. In a similar vein Lonergan writes:

Every doubt that the pure desire is unrestricted serves only to prove that it is unrestricted. If you ask whether X might not lie beyond its range, the fact that you ask proves that X lies within its range. Or else, if the question is meaningless, incoherent, illusory, illegitimate, then X turns out to be the mere nothing that results from aberration in cognitional process (I 376).

While there may be much we shall never know, there is nothing in principle about which we cannot question.

Yet, the discerning mind will object that this kind of response is too general, and will point to numerous scientific matters of knowledge about which people living centuries ago could not ask. For example, today it is an intelligent question to ask about the existence of gravitons

and what role they might play in relation to both quantum mechanics and general relativity theory. Clearly, this is a question that not even Newton *could* have asked. The argument about our general ability to question seems to be specious, since there are many particular questions that we cannot in fact ask. This objection, then, concerns the possibility of *some specific unknown unknowable*.

Lonergan of course acknowledges the existence of specifically unknown unknowns. In short, the answer is that this point raises not a problem, *but a solution*. To demonstrate why, I must present probable judgments at a second approximation. Above I noted that probable judgments may be understood as the best answer available given the alternatives. Here I refine the account as follows. First, I introduce the distinction between proximate and remote criteria for truth. The *proximate criterion* of truth is the “reflective grasp of the virtually unconditioned,” which is to say one’s insight into the sufficiency of data to affirm or deny a prospective judgment.²⁸ The ability even to raise a question, however, depends on one’s prior acceptance of other judgments as true, whether these are matters of common sense or scientific laws. These form the *remote criteria* of truth. These bodies of knowledge are subject to revision on account of two reasons: bias and intrinsic considerations of the subject matter. The presence of any form of bias, by definition, interrupts the process of inquiry, and thus renders the judgments to which one comes merely probable, since further pertinent questions were stymied. The probability of these judgments, then, is addressed dialectically, and especially in the case of common sense, informs the significance of human history.

Why, then, do specific unknown unknowns form a solution to the unrestrictedness of the desire to know? The answer is that *they form the concrete means by which that unrestrictedness is realized for humans*. The intrinsic considerations of the subject matter concern precisely the

status of specifically unknown unknowns such as one finds in the empirical sciences. In this case, the probability of these judgments is certain and specified with respect to the inquiry at hand (I 574). The existence of specific unknown unknowns, then, is itself established through insight into the process of such scientific discovery. The existence of such unknowns, then no more threatens the unrestrictedness of our intention of being than does the existence of probably certain judgments. By the same stroke, then, they qualify the character of that process concretely in human history.

(b) The Notion of Being

If one comes to a virtually unconditioned judgment, what is it that one knows? Or stated in a parallel fashion for the investigations of logic, mathematics, and science, if one comes to a probably true judgment, just what is it that one knows to be probably true? The simple answer is that any judgment is strictly speaking an affirmation or denial that the intelligible content of some insight *is* or *is not*. Thus, whenever something is affirmed as being, that part of being is intelligible. Furthermore, being and reality are identical for Lonergan: “as apart from being there is nothing, so apart for reality there is nothing; as being embraces the concrete totality of everything, so too does reality.”²⁹ Thus when one knows, one knows an aspect of being, or what is the same thing, an aspect of reality. The implication is that all reality or all being is intelligible. When one comes to the end of a cycle of questioning, then, one transcends into reality, but not in some literal sense of stepping beyond one’s own consciousness to a world existing “outside.” Rather, one transcends one’s previously unknowing self to become a less

unknowing self. Hence, to return to the above statement, when one understands why such an activity of cognitional structure of knowing, one also knows why one knows being.

What, then, is being? Given the above conclusions, it is not surprising that Lonergan defines being as “the *objective* of the pure desire to know” (I 372).³⁰ Still, there are three critical items to note concerning this definition. First, this “definition of being, then, is of the second order” (I 374). What Lonergan means by a second order definition is that while other definitions determine what is meant, this definition explains “how that meaning is to be determined” (I 374). Whenever one knows, or desires to know, then one knows or desires to know being. This definition does not settle what is known or will be known. Second, this definition defines the *notion* of being. Lonergan states that “a notion arises only insofar as understanding discerns future function in present structure” (I 378). The desire of hunger, for example, is oriented towards eating food, but the notion of hunger arises insofar as the orientation of hunger is understood. In a similar fashion, though not altogether the same, the notion of being is an orientation towards being.³¹ As such an orientation is all-pervasive, “[underpinning] all cognitional contents, [penetrating] them all, and [constituting] them as cognitional” (I 308). Finally, and following closely on the second item, being as the *objective* of the pure desire to know is both the totality of what is known and what is *to be* known. Thus, the intentional correlate of the pure desire to know is more than the totality of correct judgments achieved so far, since our desire to know will always exceed our ability to understand.

This last point wraps up the second of the two questions pursued at the beginning of this section. With respect to the first question: the performance of experiencing, understanding, and judging results in knowledge because what is affirmed as virtually unconditioned rests on an unrestricted intention and an unconditioned result. With respect to the second question: what it

is that one knows is a part of being or reality, where both of these latter terms are equivalent, and admit of definition only in a second order sense as notions. A great advantage accrues to this approach, since it becomes possible from this model to attempt a retrieval of metaphysics while remaining strictly within the trajectory of a hermeneutic inquiry. Yet, while Lonergan takes just this approach, I must pause now to make clear in what way the foregoing provides a third model for phenomenological hermeneutic thought.

6. The Third Model for Hermeneutics

I have now to complete the argument that the present account of cognitional structure may be taken as a third model for hermeneutics, especially the *infinite* hermeneutics Ricoeur first opened.

Stated in as linear a fashion as possible, one can make the case in the following way. First, it will be recalled that for Ricoeur the “finitude” of reflection consists only in the cogito’s failure to coincide with itself. This failure is attested in the distinction between the conscious act and its representation, usually by signs. The result, second, is that the character of reflection cannot be grasped directly, but only through a long detour, which is the fundamental reason why the hermeneutic circle as Ricoeur rearticulates it meets Badiou’s criteria for infinite thought. Third, the way in which reflection is objectified does not constitute a negative moment, but instead the only positive access one has to this reflection. The representative signs, then, provide access to the reflective cogito rather than disbar it. Fourth, Ricoeur thus set himself the task of attending to the character of these objectified phenomena as symbols, metaphors, texts, and so on. In each case, Ricoeur found that these models of signification shed light on the character of

transcendental reflection, and thus provided a means by which to recover some understanding of it, though never in a total way. Whatever the development of models in his thought, then, the basic character of transcendental reflection as an infinite hermeneutics remains constant.

Turning now to my own proposed extension, I have argued the following. In the fifth place, there is no reason in principle why one could not propose a phenomenological model rather than a signifying model, given Ricoeur's rearticulation of the hermeneutic circle. A phenomenological description may serve just as well as a signifying model as a representation of the character of transcendental reflection. I did argue, however, that given the way in which Ricoeur generally conceived of phenomenological descriptions, this path was not in fact a viable one. Thus, sixth, I set about establishing a viable path by inaugurating an impersonal phenomenology. This phenomenology not only retains a one-level account of first person consciousness, but also does so without presupposing that the dative of manifestation must form some kind of unity which is supposedly given in a phenomenological experience. Furthermore, I argued that as a complementary notion, it proves possible to investigate not only single acts of consciousness, but patterns of consciousness. The two explored so far have been the erotic pattern and the inquiring pattern.

In the seventh place, I have appropriated Lonergan's phenomenological descriptions of the character of human inquiry, which is most typified in the inquiring pattern of consciousness. The result of this conscious structure is that it provides the grounds by which one can claim that human inquiry reaches the absolute and knows the absolute it reaches—at least with corrigible results. The depth, character, and extent of this corrigibility is a matter that I should like to postpone until I have developed a few more notions to make sense of these claims.

There thus remains the matter of testing the adequacy of this third model, at least beyond its own consistency. In the eighth place, then, it will be recalled that the purpose of developing an alternative model for hermeneutic reflection was to account for events and even emergence, not only in the human sciences, but also in the natural sciences, and even in logic and mathematics. In short, it was the limits of Ricoeur's textual model, even when extended by Ihde's work to the natural sciences, which occasioned the present detour back through phenomenology. This means that the legitimacy of my wager on a descriptive phenomenology of inquiry will only be sustained if I can make good on this task. In specific form, this means that I must be able to use this model to answer the remaining problems and concerns raised at the end of the second chapter.

In the ninth place, one will note that there appears to be something of a discrepancy concerning events here. As I described Ricoeur's hermeneutics, inquiry results as a response to events of meaning, such as symbols, but with the account of cognitional structure, events emerge not external to reflection but internal to it, through inverse insights and the following development of insights that follow upon such understanding. I think, however, that this opposition is indeed only an apparent one. One must recall that in fact, symbols, metaphors, texts, and even actions, are only ever encountered within the arc of reflection. This is why there is always a space for transformation or refiguration in response to an event. Such an approach is exactly similar to the correction of a cycle of inquiry in response to an inverse insight, which transforms (or in Ricoeur's language: refigures) the very character of inquiry on a matter such as chemistry or mathematics.

In the tenth place, finally, the present inquiry comes to the remaining tasks. For while I have hinted at how events might be accommodated by an account of cognitional structure, at

least three critical matters are absent. First, while Ricoeur could always appeal to a semantic field of sense in which one of his models was taken to operate, the present recourse to phenomenological description has provided no analogous notion. As a result, I have provided as yet no analogue to what Badiou calls a world or what he calls the inexistent, which is the point from which an event may be taken to emerge. Second, I argued that Ricoeur's emphasis on transformation or refiguration as an always open possibility enables his account to broach the topic of emergence beyond an account of events. In the foregoing account of cognitional structure I have used the term "emergence" rather casually, and with no regard to the actual problem identified at the end of the second chapter. Accommodating the technical term, then, proves to be an additional concern beyond even that of events. Finally, I also argued that any of Ricoeur's models opened the question of ontological instability, the possibility that the very character of what is might change. Still, I noted that Ricoeur was never able to articulate this matter well, and that his retrievals of metaphysics always remained quite provisional. This proved to be the second limitation to Ricoeur's textual model of hermeneutics. I must make good on the ability of hermeneutics, then, to articulate a new account of metaphysics. These points, then, provide the specific aims of the chapters that will round out the second part of the present essay.

Part II
On Worlds

6

Fragile Worlds

“...everything written...was unrepeatable since time immemorial
and forever more, because races [*estirpes*] condemned
to a hundred years of solitude do not
have a second chance on earth.”

– Gabriel García Márquez
*One Hundred Years of Solitude*¹

The aim of the present chapter is to resolve two major problems. First, how can the proposed third model for hermeneutics provide an account of a situation or world in which it can reasonably be said events occur? Second, on what grounds can it be claimed that such a world possesses an inexistent, or a site from which radical novelty can emerge?

Because the proposed third model for hermeneutics is a phenomenological model, I shall have to try and answer these questions phenomenologically. This means, then, that I must provide a phenomenological description of a world. Since the emergence of Husserlian phenomenology there have been a number of phenomenological accounts of the world, with Heidegger’s account in *Being and Time* perhaps as the most famous. Yet, because the present phenomenology is an impersonal one, drawing from these sources is not possible. Romano, in his three volumes on the event, *does* prove to be the one exception to this trend. His is perhaps the first and only first-person phenomenological description of the world which remains impersonal. Yet his account nevertheless suffers from the confusions of phenomenological and hermeneutic method identified in the fourth chapter of the present essay. In short, despite the long tradition of phenomenological descriptions of the world, none of these will be of any help in

the present endeavor. The present description of the world must be wholly novel with respect to the tradition of phenomenological hermeneutics.

In continuity with the hermeneutic character of the present essay, the present description of the world is founded upon a wager. In fact it is a double wager, each of which begins with a clue. The first clue is gained by focusing on Heidegger's work. In §§15-18 of *Being and Time* Heidegger provides an initial phenomenological description of the world following from an insight into the character of entities in their environment. In §19 he then contrasts his account of the world with the Cartesian definition, which characterizes the world in terms of *res extensa*. This contrast turns principally on Heidegger's short road, which prioritizes his own investigation absolutely over the descriptions of science. Because the present infinite hermeneutics takes a long road *through* scientific, poetic, and other disciplines, another path is opened. Surely the Cartesian account of the world is no longer an adequate depiction of the world envisioned by scientific thought. What, then, is an adequate scientific depiction of the world? The answer, which is fairly well known, is that it is an ecosystem or series of ecosystems. The first wager, then, is that a phenomenological description of an ecosystem will provide an adequate account of the world.

This first wager, however, commits one to a clear problem: just how is the present account to remain a *phenomenology*, and not succumb to mere scientism? The clue to answering this question is provided by Lonergan's phenomenology of cognitional structure, which is that inquiry proceeds by designating a known unknown as its objective. This is to say it proceeds by heuristic notions. Lonergan later extends this account of heuristic notions to include what he calls "heuristic structures." So the second wager of this description is that Lonergan's heuristic

structures are suitable to account for the generic character of what it is that one understands when one understands an ecosystem.

What will follow from the present phenomenology is not simply an account of world-process, but the beginnings of the larger worldview that this essay hopes to articulate, namely the trans-modern worldview. A critical component of this view is that the world has an inherent fragility to its process, which feature is the basis for the title of the present chapter. There is a specific way in which I intend this fragility to be understood, and by the end of this chapter my hope is that this sense will be specified.

Because the topic of this chapter is complex a brief preview of the progression of the argument may clarify the matter somewhat. To begin (§1) I need to draw a few distinctions between explanation (scientific and otherwise) and common sense, since these distinctions will furnish the basis for general character of the phenomenological description that follows. Afterwards (§2) I will undertake to describe just some of the features of an ecosystem as scientists do study them. The particular example of focus is the Florida Everglades, because it exhibits a number of salient features that will simplify the phenomenological description that follows. Following this description, I shall undertake to adapt and update Lonergan's account of heuristic structures to meet the intelligibilities described of ecosystems (§§3-6). This much constitutes the heart of the present phenomenology of an ecosystem. Such an adaptation is made possible because the heuristic structures Lonergan provides are quite generic, so that they fit as well for the more specific case of an ecosystem. I shall then turn (§7) to a brief mention of some points that would have proved quite difficult to address earlier, and which, when taken together, specify the generic sense of the in-existent in a world, as well as the possibility for radically

discontinuous change. I conclude (§8) with the worldview that follows from the present phenomenology.

1. Explanation and Common Sense

By broaching the topic of explanation I am returning to an old Diltheyan distinction between explanation and understanding, the former of which is supposed to address the natural sciences, the latter the human sciences. I do not want to revive this distinction, however, but to modify it. My aim in this section is to provide a new account of this distinction that does not carry with it all the encumbrances Gadamer and Ricoeur have so decisively criticized.² This poses something of a problem, however, since Ricoeur uses structuralism as the account of scientific explanation suitable to the human sciences. To his mind, it obviates the need to look to the natural sciences for a model of explanation. But since my proposal for the third hermeneutic model of inquiry is aimed precisely at developing a form of philosophic inquiry that would be adequate to address the significance of the hard sciences as well, this path is not available to me. My hope is that a retrieval (*Weiderholung*) of Aristotle's distinction between knowledge *to hoti* and knowledge *to dioti* might server better.

(a) Knowledge to hoti and to dioti

Aristotle is famous for having written that being is said in many ways. What is less often acknowledged is that he also held that knowledge too is said (*legei*), or better: understood, in more than one way. In the first book of the *Nicomachean Ethics*, for example, he writes the

following: “We should also like to recall what has been stated previously: precision [*tēn akribeian*] should not be sought [*epizētousi*] alike in all cases, but in each case only as much as the subject-matter allows and as much as is proper to the inquiry [*tē methodō*].”³ The knowledge one has of ethics is not precisely of the same character as the knowledge one gains of physics or metaphysics. The ground for this distinction—and this point is almost never noted by commentators—is one that is based not on the *content* of one’s discussion, but on the character of the *inquiry*. The limit to precision is dictated by what one is *seeking*, by the activity of inquiry.

In his work on Aristotle’s *Analytics*, Patrick Byrne has noted that this emphasis on the correlation between the seeking of an inquiry and that which is sought stands at the foundation of his characterization of “*epistēmē*.” Byrne argues convincingly that “Aristotle held that scientific knowledge, *epistēmē*, means an advance beyond knowledge of the mere fact (*to hoti*) to knowledge of ‘the reasoned fact’ (*to dioti*).”⁴ The crux of his argument turns primarily on the two analyses of “*epistēmē*” in the first and second books of the *Posterior Analytics*. The first of these begins in the spirit of clarifying what might ordinarily be meant by “*epistēmē*” as used by the educated elite of Athenian culture. In the second book, however, Aristotle defines “*epistēmē*” explicitly in terms of *questions* as follows:

The objectives of inquiry [*ta zētoumena*] are equal in number to those we know scientifically [*epistametha*]. We seek [*zetoumen*] four things: the fact [*to hoti*], the reason why [*to dioti*], if it is [*ei esti*], what it is [*ti estin*].

For when we seek whether it is this or this, putting it into a number (e.g. whether the sun is eclipsed or not), we seek the fact [*to hoti*]. Evidence for this:

on finding that it is eclipsed we stop; and if from the start we know that it is eclipsed, we do not seek whether it is. When we know the fact we seek the reason why (e.g. knowing that it is eclipsed and that the earth moves, we seek the reason why it is eclipsed or why it moves).⁵

As the context of this statement makes clear, “*epistēmē*” is determined by four questions. In each case, the objective of what is sought is specified by Aristotle’s awkward sounding (even for Greeks) substantializing periphrasis denoted by the neuter article “*to*” followed by a questioning word. The only exception in Jonathan Barnes’ English translation is the first of these, which he renders as “the fact.” Nevertheless, the following sentence clarifies that what is meant by “*to hoti*” is not some state of affairs, but the objective to be known by answering the question whether something is (e.g. whether the sun is eclipsed or not).

After one knows “the whether” (*to hoti*), one seeks “the reason why” (*to dioti*). A progression of inquiry is suggested here: from knowing that something is, to wondering why something is. This progression is paralleled, Byrne notes, in the second set of questions as well: once one knows if something is, one moves to question what it is.⁶ What this means is that the character of knowing that Aristotle called “*epistēmē*” consists in producing a second set of answers over and above those posed initially. Beyond answering whether or if something is, *epistēmē* requires that one answer “why?” and “what?” as well. This means that while answers to the first kinds of questions are fine on their own, the character of *epistemic* inquiry requires that one complete these questions by posing and answering a complementary set.

Since my aim here is not Aristotelian exegesis but a phenomenology of inquiry, I only draw out what I take to be sound phenomenological distinctions present in Aristotle’s *Posterior*

Analytics, as brought to light by Byrne's commentary. I do not aim to retain these terms as they stand, however. Aristotle's articulation of the relation of knowledge *to hoti* and knowledge *to dioti* has its own particular significance within his thought as a whole. What I want to suggest is that these initial distinctions may be use to provide a sounder basis for a distinction between a new form of explanation and the kind of knowing related to Aristotelian *phrōnēsis*, which may be called "common sense."

(b) Explanation and Common Sense

The upshot of Aristotle's analysis of inquiry is to distinguish explanation from common sense (1) through the objectives of inquiring, and (2) through the character of those objectives. The twist suggested here is that knowledge *to dioti* may be understood as that kind of knowledge that *is gained through inquiry into the relation of matters to each other*. Thus, as the algebraist says, "Let x be the required number..." so the empirical enquirer says, "Let some indeterminate function $f(x, y, z, \dots)$ be the required function." Replacing Dilthey's account of explanation, the present proposal is that one should use "explanation" to denote knowledge *to dioti*, or knowledge of the relation of matters to each other. On the one hand (as with Dilthey) I take it that this kind of inquiry typifies the inquiry of the sciences, as well as mathematics and logic. On the other hand (and unlike Dilthey), I hold that this kind of knowledge in no way conforms to the positivism he supposes, and may be available well beyond scientific inquiry.

What then, the reader might wonder, corresponds to knowledge *to hoti*? In a word: "common sense." Despite the name, this term is intended to be understood in a technical manner, namely as knowledge of the relation of things to us (*I* 201). One need only recall

Whitehead's famous analysis of the two ways in which one can consider a table to get a rough indication of what is meant. When I sit down to eat, before me there stands the table that is composed of atoms, and ultimately is explained in terms of wave patterns. But it is also true that this is a table that is colored, hard, warm, and something on which I eat. The latter is the table of common sense, because my knowledge of this table only grasps it (even if tacitly) in its relation to me, and specifically my purposes.

A number of consequences follow upon this distinction. First, one might note that a Heideggerian way to state what has been called "common sense" would be to claim that it is the knowledge, or understanding, of things in relation to *Sorge*, or care. This is very close to accurate, but since the present investigation has followed Ricoeur's long road, there is no priority of this knowledge over that of the explanatory. Indeed, the two do often compete, and the resolution itself can prove difficult. Second, and on a related point, one might wonder whether common sense knowing is knowledge of lived experience (*Erlebnisse*). The answer again is negative, but this time the matter is more complicated, since "*Erlebnisse*" expresses a package of ideas. Ordinarily what is meant is (1) a kind of knowledge that is given in experience through first-person consciousness, (2) a kind of knowledge that is held to be prior to that of scientific knowing or apophatic discourse. With respect to the second point, then, this knowledge is *not* taken to be prior either to scientific knowing or to explanatory knowing generally. Explanatory and common sense knowing are taken to be complementary, and so on par with each other. With respect to the first point, it is *not* knowledge by some kind of perceptual experience, since this would be to fall back into ocular metaphors of knowing, and by extension the metaphysics of presence. Even more to the point, however, it is also not this kind of knowledge because common sense *does not* map onto first-person consciousness. Indeed much of the warrant of the

present work turns on my ongoing argument that first-person consciousness can be examined in *explanatory* terms. It is this point that accounts for the universality of the results, and avoids the concerns raised by feminists and race theorists about “essentialism.”⁷ While it is the case that explanatory knowledge characterizes the sciences, it is also my contention that any theoretical inquiry aims at this kind of understanding, though in different ways. What concerns logical, mathematical, and scientific inquiry are a specific set of heuristic structures. What concerns specifically the explanatory knowing characteristic of phenomenological hermeneutics was specified by the Galoisian revolution, namely a reflection on the structures of inquiry in the various domains of research and human intelligence generally.

Finally, one might wonder what follows from this distinction with respect to events, in a Badiouian sense. Specifically, one might wonder whether I have not just fractured any possibility for a unified sense of event, since scientific events would follow as a certain kind, while those of common sense as another. My argument, perhaps unsurprising since I shall follow Ricoeur on this matter, is that events must be understood as a kind of analogical unity. This does mean, of course, that there is some common term to each of the events, while something that varies in each case. With respect to what is common, one can speak of evental processes as homogeneous, but with respect to their differences, events vary widely. I do not take this analogical unity, however, to be much different than Badiou’s own account, which finds a different kind of impossibility for each of the four truth procedures, but one general term that remains the same in each case.

With these preliminary remarks on the differences between explanatory and common sense knowing in mind, I now turn to the proposed phenomenology of an ecosystem.

2. An Ecosystem – An Initial Description

To give the following phenomenology a concrete point of anchorage I will focus on what is perhaps one of the world's most famous ecosystems (or series of ecosystems): the Florida Everglades. In some ways this choice is arbitrary, since the phenomenology to follow provides a description that will apply as much to the fusion cycles of the sun as to urban neighborhoods or even economic cycles. On the other hand, the uniqueness of the Everglade ecosystems allows for an analysis of aspects which, while salient here, would be difficult to discern in other conjunctions of ecosystems. I have also chosen a "natural" ecosystem, because human ecosystems proper introduce a number of other topics such as human meaning, history, and social reality that would make the account too complex for the aim I have in mind at present.

I begin, then, with a simple description of the major ecological features of the Everglades before I produce some first analytical descriptions.⁸ Perhaps the most well-known aspect of the Everglades proper is what Marjory Stoneman Douglas called "the river of grass" in her classic 1947 work *The Everglades*.⁹ The runoff from Lake Okeechobee to the Gulf of Mexico forms a slow moving and shallow water system populated largely by the sedge grass known as *Cladium*, or sawgrass colloquially (see figure 6.1). This long v-shaped grass flourishes in the shallow water (about two feet deep) of the flow at about four feet in height on average. It both provides sanctuary to alligator nests and produces periphyton (a kind of algae with microbes) that serves as food for other animals. To the east of this slow moving river is the Atlantic costal ridge, which prevents the runoff from flowing into the Atlantic. To the west one finds higher ground populated by pines and cypress trees. Though impressively wide now, before the first drainage attempts in 1905 the Everglades were even wider, occupying almost a third of lower Florida.

Today the Everglades nevertheless retain a number of different features and are populated by more than just sawgrass. Apart from the sawgrass marsh there are three other significant features of the Everglades proper: hardwood hammocks, wet prairies, and ponds and sloughs. The hardwood hammocks are slightly elevated portions of land, rising between one and three feet above the waterline, and feature temperate or tropical trees and shrubs. Near the bases of these hammocks sharp saw palmettos often flourish, with the result that the hammocks are both difficult to penetrate, and make up their own sub-ecosystem within their surrounding environment. Additionally, water sloughs flow around these hammocks forming them into tear-shaped islands with surrounding motes. At a point just slightly deeper than sawgrass marshes are the wet prairies, of which there are two types: water marsh communities and marl prairies. These latter are made up of lime-rich mud (i.e. mud with high levels of calcium carbonate). Both support a wide variety of fauna from crayfish to alligators, which find their ecological niche in the mud. At the deepest levels of the Everglades one finds ponds and sloughs, or free-flowing channels of water, that act like rivers within the larger flow. The two largest sloughs in the Everglades are the Shark River slough (see figure 6.1) and the Taylor slough located in the eastern portion of the Everglades. On the borders of sloughs peat beds form, so that not only grasses may flourish, but also a number of animals such as turtles and young alligators.

This description is just enough to get a general outline of the Everglades. I now turn to an account of this ecosystem in its dynamic function.

(a) Four General Characteristics of Ecosystems

In 1930 Roy Chapman coined the term “ecosystem” to indicate the relation understood by the combined biological and physical components in an environment. A little later Arthur Tansley refined the term, describing it as “[t]he whole system ... including not only the organism-complex, but also the whole complex of physical factors forming what we call the environment.”¹⁰ The basic insight into an ecosystem, then, is an insight into a sort of relational holism.

The whole that is an ecosystem, like any other, is made up of parts. Some points about these parts, however, are philosophically noteworthy. To begin, the analysis of an ecosystem does not distinguish strictly between biological elements (the biotic) and those that are “physical” (the abiotic). The analysis appropriate to an ecosystem thus prescind from classical divisions such as living/non-living or even nature/culture. Even human activity is taken to form part of an ecosystem, since, for example, the existing Everglade ecosystems were formed in part by human draining, and continue to be shaped by human urbanization on the Atlantic coastal ridge.

This insight brings one to the second noteworthy point: the parts of an ecosystem are related to each other functionally. I noted, for example, that the sawgrass allows for the formation of periphyton, which is an algae comprised of more than 100 microorganisms.¹¹ Beyond providing food for larval insects and amphibians, however, it also absorbs calcium, which creates the marl where the sawgrass can take root, or, if the water level rises, wet prairies where alligators can live. The parts of an ecosystem thus condition each other and allow for functional analysis.

A third point concerns the dynamism of ecosystems. What I do not mean by this dynamism is the mere fact that components of the ecosystem move, for example, animals or

abiotic phenomena such as water. Instead I mean that ecosystems themselves are subject to change, collapse, and growth. While it is likely that the most fundamental feature of the Everglade ecosystem is water and its flow, the regular fires caused by lightning strikes both limit the amount of brush that accumulates in the area and releases nutrients more efficiently than simple decomposition.¹² Yet, at the same time these fires, if and when they reach the hardwood hammocks, which are guarded by sloughs, often destroy these miniature-ecosystems by eliminating the biotic life necessary to sustain them, namely the trees.

Finally, I note that the boundaries of an ecosystem are not strictly given, so that the holism present is more properly a quasi-holism. Even so, in order to analyze an ecosystem both spatial and temporal boundaries must be established, and this requires an understanding of related ongoing processes. In the Everglades, then, it is the underlying rock formation of calcium carbonate that made the slow drain from lake Okeechobee possible.¹³ This rock formation was itself formed between two and twenty-five million years ago, and is the result of the larger ecosystem of the Earth's plate tectonics. And these plates themselves are embedded within a still larger and older ecosystem, namely that of the solar system, which is responsible for making of the Earth and the cooling process which resulted in these plates. Because one must limit the analysis at some point in order to make progress, the holism of ecosystems is subject to certain stipulations (or better: negative heuristics).

In some measure I have already noted the second major characteristic of ecosystems: that they are understood largely in terms of spatio-temporal cycles. Perhaps the most well known of these, and it is certainly present in the Everglades, is the water biogeochemical cycle. Biogeochemical cycles chart the pathway by which a chemical or molecule moves through biotic and abiotic components of the Earth, so that in this case one can understand the way that water

molecules from the ocean evaporate, condense to form clouds, precipitate, runoff into streams, rivers and ground-water, and finally empty back into the oceans. There are, of course, many other kinds of cycles. In the Everglades a basic cycle is the hydroperiod, which is the length of time that a region in the Everglades remains flooded. These periods range from shorter spans of about three months to years, but recur at regular intervals (barring disruption).

Not only do ecosystems have cycles; these cycles condition yet further cycles, and this conditioning (at times mutual conditioning) is the third feature to note about ecosystems. In the Everglades, for example, the hydroperiods have been noted to condition the frequency and occurrence of fires. There is thus a kind of fire-cycle, which actually serves as a cycle of rapid decomposition, contingent upon flooding.¹⁴ What perhaps is most interesting are cycles of mutual conditioning. The water cycle is, in general, a striking example of this kind of conditioning. It is not the rain that causes the oceans, or the oceans that cause the rain, but the conditioning of one phenomenon on the other that makes up the cycle. The point of philosophical interest, then, is that the kind of causation that one understands in a cycle is not analytic. It does not resolve from a complex level to a most fundamental and discrete series of basic elements.

The final point to be noted here is the way that cycles condition each other not only resists collapse but gives rise to novelty. The dynamics of an ecosystem are such that the conditioning of cycles on cycles of recurrent events allows both for resilience and fragility. The sloughs around hardwood hammocks prevent most fires, but longer dry periods also put the vegetation at greater risk. In the worst case scenario, the breakdown of one cycle conditions the breakdown of another, and that in turn occasions yet further decline. Such a scenario is a picture of ecological collapse. In the reverse direction, however, one notes that the condition of one

cycle on another allows for the further diversity and proliferation of life. As the hydroperiods condition the seasons of growth and decline, so both microorganisms and larger fauna are able to find their respective niches and flourish. As a result the Everglades are estimated to have over 11,000 sea bearing plants and over 400 land and water vertebrates.¹⁵ The evolutionary point here is that if the probability for the recurrence of cycles is greater than their probability of decline, then in the long run one will tend to find continued emergence of such cycles. One has here, in short, a recipe for novelty.

(b) Modeling an Ecosystem

Before turning to a phenomenological analysis of ecosystems proper, I want to touch on one final point of description: the ways that scientists study an ecosystem. While there are, of course, numerous particular methods of measurement and forms of experimentation that are used to analyze ecosystems, of particular interest are the tools used to model an ecosystem. By means of these models scientists are able to generate accurate representations of the critical cycles and mechanics of causation present in an ecosystem. It is these models, then, that provide the best *general* descriptions of ecosystems.

From the perspective of an ecologist or Earth scientist the motivation for using a model is rather straightforward: ecosystems are overwhelmingly complex, so much so that they defy even our best attempts to understand them. Because an ecosystem is not simply a series of cycles, but a dynamic series, the aim of most models is to capture this dynamism. The mathematical study of dynamics, however, long ago ran into a problem. While Newton was able to launch his physical program by analyzing the differential relations of the sun to the Earth, he was unable to

analyze three bodies in relation to each other, such as the sun, Earth, and the Earth's moon. By the mid-18th century this problem became known as the three-body problem. Although Newtonians' use of calculus made astounding advances through resolution of continuous functions by approximation, Henri Poincaré in the late 19th century showed that the problem was provably unsolvable by such methods of approximation.

In order to model ecosystems, then, scientists often content themselves with modeling only an aspect or specific cycle of the ecosystem, though they do so with the aim of capturing its dynamism. There are two major "tools" that they have available to them in order to undertake this kind of analysis: functional and statistical analysis. Perhaps the oldest of these tools, functional analysis was used quite successfully to model predation in an ecosystem. In 1926 Vito Volterra, for example, modeled this cycle with the following pair of differential equations:

$$\frac{dX}{dt} = \alpha \cdot X - \beta \cdot X \cdot Y$$

$$\frac{dY}{dt} = \gamma \cdot \beta \cdot X \cdot Y - \delta \cdot Y$$

The variables in these equations are taken to represent the following: X is the number or concentration of the prey species, Y is the number or concentration of the predator species, α is the prey species' growth rate, β is the predation rate of Y upon X, γ is the assimilation efficiency of Y, and finally δ is the mortality rate of the predator species.¹⁶ The result produces two continuous functions, each of which bear some resemblance to a sine wave. What this graphical depiction *means* is that the populations of predator and prey are regularly recurrent cycles. In the

particular case, Volterra was interested precisely in modeling the cycle of shark predation on fish in the Adriatic Sea, but a similar model could be used to express the relation alligators to fish in the Everglades marshes. More importantly, the two functions express an observable relation between the two cycles, namely that decline in the sharks' population follows the decline of the fish population by a slight amount. This means that there is a correlation, at least, between one cycle and another.

While such models have some limited use, the overwhelming majority of ecological dynamics cannot be captured by such an approach because of two factors: the interdependence of variables (sometimes into the billions), and the non-linearity of the functions that express their relations. Scientists then have recourse to other methods of analysis. The most obvious of these is to analyze events in ecosystems by means of statistical inquiry. Most often such statistical analysis is required as a preliminary heuristic study to produce what functions may be applicable to an ecosystem. Here one finds, for example, that the frequency of alligator nests per unit of land is higher in sawgrass marshes than it is in wet prairies. Such knowledge may be used, then, in conjunction with knowledge of hydroperiods to establish a correlation between birth rates and geological phenomena. Yet, beyond this point there are many phenomena in an ecosystem that may be considered in a purely statistical way. Trophic dynamics, which concerns the study of energy exchange in an ecosystem, is an exceptionally difficult matter to tackle because each of the members in the food chain bears a relation to the others. One way to make sense of these data is to treat populations as sums of stochastic events and normalize their frequency of occurrence per unit area. This is precisely the way, for example, one comes to the notion of biomass in an area, which serves as the basic level of analysis for the distribution of energy along a food chain.¹⁷ With the biomass in an area established, it then becomes possible to model the

distribution of energy up the food chain. And this may be modeled either partially by means of functional analysis, or again statistically.

Having now given a basic description of what an ecosystem is from a scientific and mathematical point of view, the task that remains is that of providing a *phenomenological* description of these matters.

3. Classical and Statistical Heuristic Structures

My proposal for providing a phenomenological description of an ecosystem is to make use of cognitional structure in its heuristic capacity. This is to say, since one of the basic insights behind cognitional structure is that inquiry is led on by designating a known unknown, it might be possible to find describe not only individual heuristic *notions*, but also heuristic *structures*. The argument is the following: if one describes all the heuristic structures that account for the intelligibilities discovered in an ecosystem, then one will at the same time have produced a phenomenological account of what an ecosystem is. Thus the phenomenology of an ecosystem presented here is a phenomenology of the types of intelligibilities grasped when one understands an ecosystem. The description, then, remains a description of the second-order, since it describes not any particular ecosystem, but the ways in which one goes about determining just what an ecosystem is. As an additional point, it is to be noted that this account is one that approaches an ecosystem in an explanatory way, that is in terms of how intelligibilities relate to each other, rather than in a common sense way. The results thus remain impersonal, following the wager that has guided the present investigation since the fourth chapter.

(a) Classical Heuristic Structures

An heuristic notion functions much like a rule of thumb that allows one to solve a problem. It is the designated known unknown that guides inquiry in the attempt to discover truth. It enables one to anticipate the type of act through which the unknown could become known—though of course through one’s investigation it could be determined that the initial anticipation was wrongheaded. In that case, one would come to an inverse insight. Remaining with the structure of a direct insight, it is possible to designate an heuristic structure as “an ordered set of heuristic notions” (I 417). An ordered set is simply the set-theoretic way of capturing a relation, so that this claim only means that a heuristic structure is a patterned relation among heuristic notions. Lonergan’s argument is that there are four such heuristic structures, and it is my present thesis that the basic components of an ecosystem may be captured by addressing three of these and their interrelation.

In the descriptive analysis of an ecosystem, I noted both that ecosystems are dynamic and that scientists tried to model this dynamism in a variety of ways. One of the earliest procedures used was through the anticipation of “the nature of ...” which was to be satisfied by an indeterminate function $f(x, y, z \dots)$. Volterra’s pair of differential equations was, to begin with, an anticipation of just this sort. He wanted to discover just what the character of predation was in the Adriatic between sharks and fish, and he both worked out what the function might be, and had it correlated with actual data. When one seeks this kind of intelligibility as a scientist, one operates with what Lonergan called the “classical heuristic structure” (I 60). It is so named because the scientists who first used it were scientists who investigated in the way Galileo, Newton, Clerk Maxwell, and Einstein did.

There are, in brief, six aspects that are important about this kind of structure. First, like all heuristic notions, it designates the unknown by a name. Unlike other anticipations, however, the name designates an anticipated relation, though in the more usual case this relation is a function. Second, it works out the properties of the unknown that must be satisfied. If one wants to understand an instantaneous rate of change, for example, one works out its properties in a differential equation that will assist one's seeking. Third, it uses these properties to guide investigation. After one knows what needs to be satisfied, one must undertake the hard work of gathering data by experiment. Inquiry then proceeds from the bottom-up. Fourth, because this is a scientific insight that one anticipates, it seeks the relation of these data to each other and not to oneself (and especially one's senses). While a computer display might represent the levels of thermal activity in an area by visible colors, what one comes to understand is just those levels of activity in relation to the area, and not their particular visual appearances. Fifth, it is often the case that scientists can deduce the relevant differential equations required from quite general considerations. He may anticipate "that the function which is the object of his inquiry will be one of the solutions of the relevant differential equations" even before experiment (I 68). The reasons for this turn on the way in which one's inquiry is already guided by the background understanding provided by prior scientific investigations and prior results, and it is for this reason that purely simulated computer models can be of service. In this case, then, the bottom-up approach is complemented by top-down anticipation. Finally, the functions that are known upon verification (as a probably true judgments) hold apart from particular times and places. This is the case because what is understood are correlations among sensed data in relation to each other, and not in relation to a particular inquirer. Thus in any other similar situation the same insight will apply. Such is the rationale for why the laws of general relativity physics hold

in every physical case and Volterra's differential equations for the character of predation are the same in any similar ecosystem.

Beyond the foregoing characteristics of the classical heuristic structure, an additional point needs to be made concerning the type of process anticipated. Because "the nature of ..." is so often satisfied by an insight into differentiation or integration on continuous functions, one can say in a broad way that the process anticipated by the classical heuristic structure is continuous process. Lonergan, however, prefers to use the term "systematic process" in order to explain more precisely what is meant by "broadly continuous."

He approaches this more precise account by attending to the way that one comes to use and apply classical insights. While it is often presumed that insight is only required to *produce* classical laws, it is also the case that insights are required to *apply* them. In the latter case not only must one know which laws are required for the inference, one must also know both how they are to be combined to represent the spatial and dynamic configuration and what dimensions of the situation are to be measured to supply the relevant numerical values for the variables in the equations. In an ideal case, however, where anticipations are not hampered by any unforeseen situation, the systematic process anticipated by the classical heuristic structure may be characterized by three points:

- (1) the whole of a systematic process and its every event possess but a single intelligibility that corresponds to a single insight or single set of unified insights,
- (2) any situation can be deduced from any other without explicit consideration of intervening situations, and
- (3) the empirical investigation of such processes is marked not only by a notable facility in ascertaining and checking abundant and

significant data but also by a supreme moment when all data fall into a single perspective (I 71).

In short, the systematic process anticipated by the classical heuristic structure is a continuous one, not marked by inherent irregularities or the possibility of unanticipated or unanticipatable events. It was because Einstein supposed that all processes in the universe followed this form that he made the (in)famous remark that “God does not play dice.”

(b) Statistical Heuristic Structures

The logical possibility that there is another heuristic structure beyond that of the classical, that at the end of the day (and independently of the results of the Einstein-Rosen-Podolsky paradox and Bell’s theorem) statistics are not used simply as a “cloak” for human ignorance, turns on the possibility of a physical process other than that of the systematic process that is understood by the classical heuristic structure. Lonergan calls this alternative process, simply enough, non-systematic process.

Because systematic process is constructed according to determinate principles, it is possible to construct another process by violating those principles. First, then, non-systematic process, when understood is understood multiply. There will be no single insight that grasps all data. In a similar vein, second, “because different parts of the process are understood differently, there can be no single *combination* of selected laws that holds for the whole process” (I 72). Third, and like systematic process, because this non-systematic process is still understood, it may *in principle* be deducible in all its events (provided enough time and no limits on resources or

capacities). Fourth, and on this point diverging totally from the systematic, non-systematic process exhibits coincidental aggregates in various ways. To be clear, “an aggregate is coincidental if (1) the members of the aggregate have some unity based on spatial juxtaposition or temporal succession or both, and (2) there is no corresponding unity on the level of insight and intelligibility” (I 73). For example, the basic situation of a non-systematic process may be a coincidental manifold of events, which has unity by spatial juxtaposition, but nothing further. In such a case, then, the aggregate has no intelligible unification, nothing that can be understood, apart from the sheer spatial juxtaposition. Finally, where non-systematic process exists, “the difficulty in investigating its nature increases with the number and diversity of their several distinct and unrelated intelligibilities” (I 74). For example, data on one situation simply are not equivalent to data on the whole process, or types of data significant for one part are not necessarily significant for other parts. The one boon of this result, at least for the present essay, is that while systematic process is monotonous because it is everywhere the same, the non-systematic is the source of novelty. Since statistical science is inquiry into non-systematic process, it is not, then, a mere cloak for ignorance, but an amplification of knowledge otherwise unattainable.

So just what is statistical science? It is the science of probability. Hence, the meaning of probability must first be explored. To do so it makes sense to begin by looking to the investigations that Blaise Pascal and Pierre de Fermat undertook which started the science. This so-called classical theory of probability aimed at determining probabilities which existed independently of actual results. These were ideal probabilities, such as the probability of picking a spade from a full deck of cards, or the probability that a fair coin will land on heads rather than tails. The formula for the probability of such an even A is the following:

$$P(A) = \frac{f}{n}$$

where f stands for the number of favorable outcomes and n stands for the number of possible outcomes. The intelligibility of such a probability, then, is an *ideal* frequency, since it expresses the relation of favorable occurrences to outcomes without any consideration of actual events. It thus assumes two points: (1) that all possible outcomes are accounted for, and (2) that all possible outcomes are equally probable, which is also called the principle of indifference. Returning to the card deck as an example, (1) entails that there are only fifty-two possible outcomes (so that, for example, a card is not missing or others added), while (2) entails that there is an equal likelihood of selecting any card (so that, for example, they are not glued together). Given the fulfillment of such assumptions it is possible to say that the probability of selecting a spade from a full deck of cards is one-fourth.

This ideal, mathematical approach, while useful, is not the one that empirical scientists use. If a scientist wants to know the likelihood that a two-year old trout will die in the next year, it is in no way clear just what all the possibilities are. In fact, they are theoretically infinite. The first step in understanding the probabilities that scientists use, then, is to move from *ideal* frequencies to *actual* frequencies given by the following formula:

$$P(A) = \frac{f_o}{n_o}$$

where $P(A)$ expresses the probability of an event A as the number of observed favorable outcomes (f_o) over the number of total observed outcomes (n_o). Such a probability, then, expresses an intelligibility that obtains for an observed population. Because it only makes sense with respect to a population, then, it is termed an actual *relative* frequency. What it does not do, however, is express anything that would be applicable to other situations. In order to gain this broader applicability one must develop further the notion of a probability.

This further development moves from actual relative frequency toward *ideal* relative frequency. Consider a set of populations of events P, Q, R ... and suppose that in a sequence of occasions, events in each population happen $p_1, q_1, r_1, \dots p_2, q_2, r_2, \dots p_i, q_i, r_i, \dots$ times.¹⁸ In that case then the *sequence* of actual relative frequencies of the events will be the following series of sets of proper fractions: $p_i/n_i, q_i/n_i, r_i/n_i, \dots$ where $i = 1, 2, 3 \dots$ and in each case $n_i = p_i + q_i + r_i + \dots$ Now if a single condition is met, it will be possible to define a probability. This condition is the following. *If* there exists a single set of constant proper fractions, say $p/n, q/n, r/n \dots$ such that the differences $p/n - p_i/n_i, q/n - q_i/n_i, r/n - r_i/n_i, \dots$ are always random, *then* the constant proper fractions will be the respective probabilities (ideal relative frequencies) of the populations of events. Two results follow if such probabilities exist. First, the association of these probabilities with the populations of events defines the state of the population. Second the set of observed relative actual frequencies is a representative sample of the state.

When one understands a probability as a scientist uses it, then, one has an insight into what is *not* significant. For example, while looking at a graph of points, one is able “to draw a line” through them and ignores the events that are well off the path. In a similar fashion, when one understands a probability one understands that actual relative frequencies of events will diverge from the ideal, but that they will do so *at random*. Randomness, then, designates the absence of a certain kind of intelligibility. Moreover, with any probability what is grasped is the ideal from which the actual diverges non-systematically. Hence, any similar state described by that probability will be similarly understood. It follows that the intelligibility holds universally, and that the majority of work undertaken by scientists is to ensure that the sample set of the state actually is representative (which is to say that the actual relative frequencies only diverge at random).

It is possible now to summarize the character of the statistical heuristic structure under eight headings.¹⁹ Following Lonergan's lead, I do so by contrast with the classical heuristic structure in order to highlight certain points. First, then, rather than seeking "the nature of ..." which is to be satisfied by a relation as classical inquiry does, statistical inquiry seeks "the state of ..." which is to be satisfied by an ideal relative frequency. Second, just as classical inquiry begins with a pre-scientific description of "data of different kinds," so too statistical inquiry begins with "ordinary and exceptional runs of events." Third, as with classical inquiry statistical inquiry affirms that similars are similarly understood, so that the same natures or states do not need new theories to explain them. Fourth, "just as classical inquiry derives a general view of its possibilities from the mathematical investigation of functions and of spatiotemporal relations, so statistical inquiry finds similar guidance and orientation in the calculus of probabilities" (I 87). Fifth, just as classical inquiry develops new techniques to gather data, so too does statistical inquiry. Sixth, just as classical inquiry proceeds both from below up (with data to question) and from above down (with anticipations that the data should meet), so too does statistical inquiry. Seventh, just as classical inquiry is made possible by an enriching abstraction to a focus on functional correlations among sensed data, so is statistical inquiry made possible by an enriching abstraction to an insight into relative actual frequencies. Finally, just as classical laws must be verified, so too must statistical states. In the former case the laws must mesh with established methods, concepts and aims, and this much holds just as much for the latter, where one is ever haunted by non-representative samples.²⁰

4. Ecosystems and Development

At this point in the argument, I must pause and develop a little further the scientific account of ecosystems. The reason for this return is that while one of the most salient features of world process is development, it is not immediately obvious that non-biological, or at least not strictly biological, entities such as ecosystems *develop*. Plants and tadpoles develop, but rocks and puddles do not. And common intuitions would suggest that ecosystems would be more like the latter than the former. Because I am arguing for an ecosystemic account of world process, I must show that ecosystemic dynamics exhibit not only change and growth (reviewed briefly above) but development, which (at a first approximation) is an ordered and linked sequence of growth.

I think there are three intuitive obstacles to the claim that ecosystems not only change but develop. First, development is usually understood to have some sort of endpoint. This is not to say that all humans babies will grow to be exactly the same (it is not a rigid *telos*), but that the study of human physiology and development is able to discern the difference between an infant, an adolescent, a mature adult, and a stage of senescence. How exactly can an ecosystem exhibit these features? Second, ecosystems do not seem to have a clear form of identity or stability. The point here is not that the analysis of an ecosystem is subject to stipulative restrictions (as mentioned above), but the more problematic point that one must be able to say just *what kind of thing* is developing. What is it that is stable enough through all biogeochemical interactions that one can isolate as *that which is developing*? Third, how is it possible to *quantify* this development? The present study is a phenomenological reflection on the inquiring process and the intelligibilities identified by scientific inquiry. Yet, in order for the object of my reflection to qualify as a scientific account of ecosystems, it must be possible in some way to *measure* this

developmental change and test it. So what is the measure of ecosystemic development? In what follows I answer each of these questions.

(a) Autocatalysis

The first matter to specify is just what it is that is developing *as* an ecosystem. The answer resolves into two related points: trophic dynamics and its autocatalysis.

The backbone of most ecosystem theory concerns trophic dynamics.²¹ This is to say that what theoretical ecologists analyze are the intelligible exchanges of energy through an ecosystem. There are, of course, innumerable aspects of an ecosystem that cannot be quantified in a direct way as trophic transfers. An ethologist, for example, might notice that a certain bird in an ecosystem has developed extremely bright plumage for mating purposes. This is not a matter that can be quantified as a trophic exchange. Nevertheless, if this new characteristic is at all a significant one, it will lead to successful mating and thus affect the size of the bird population, and hence its aggregate demand for food (as well as increase the availability of energy to its predators). Indirectly, then, the ethological point will leave its trophic footprint.²²

On their own, individual transfers of energy are not significant. Rather it is only when they form a kind of stability through what ecologists call “autocatalysis,” that these energy transfers matter. Above I called these occurrences merely “cycles,” but there is a specific technical point that is at stake in the present qualification. The matter may be illustrated by a concrete example: the *Utricularia floridana*, also known as the Florida yellow bladderwort. This is a carnivorous plant found in freshwater lakes especially in the southeastern portion of the United States. They do not possess feeder roots that that draw nutrients from sediment, but

instead draw nutrients from the surrounding water. In the wild one always finds that periphyton grows on the leaves and stems of this bladderwort. Apparently the only way to grow *Utricularia* without this film is to grow its seeds in a sterile medium. What this means is that the bladderworts provide an areal substrate for the periphyton species to grow—the former is a condition for the latter. Yet, because the bladderwort grows in water, it is possible for zooplankton to reach the bladderwort and feed on its periphyton film. As a result, the film proves to be a condition for the zooplankton. During this feeding, however, it is also occasionally the case that these nearly microscopic creatures occasionally bump into the hairs attached to one end of the bladders, or utricula. When this happens, a hole opens in the bladder and the animal is sucked into it by an equalization of osmotic pressure. The animal there eventually dies and decomposes, releasing nutrients that are absorbed into the surrounding bladder wall. In short, the *Utricularia* indirectly feeds itself.

The structure here looks to be the following. If *a* occurs, namely an *Utricularia* grows in a water environment, then *b* occurs, namely a layer of periphyton grows on its stems and bladders. Yet if *b* occurs, then *c*, namely the feeding of zooplankton on the periphyton, also occurs. And if *c* occurs, then the *Utricularia* is fed and maintained in its water environment, which was occurrence *a*. What is not exactly correct about this formulation, however, is that it cannot be cast in terms of a strict conditional structure. What occurs is really a matter of “propensity.” In more exact form the case is the following: if *a* occurs, then there is an increased probability that *b* will occur, and if *b* occurs, then there is an increased probability that *c* will occur, and if *c* occurs, then there is an increased probability that *a* will occur. “Propensities,” understood as increased statistical probabilities, thus link the occurrences of autocatalysis.

The reason autocatalysis is significant for ecology is that it provides the way in which trophic exchanges become stabilized and recurrent phenomena, the way in which an ecosystem may gain an “identity” (in Ricoeur’s sense of *idem* as diachronic perdurance). Rather than one time occurrences of exchanges of energy, autocatalytic exchanges are by their very character recurrent.

(b) *Ascendency*

The second step toward development is the ability to demonstrate that the identity of autocatalytic exchanges follows a recognizable pattern. In order for there to be such a pattern, in order for networks of autocatalytic exchanges to change in an ordered, linked and measurable way, it must be possible to demonstrate that there is a regular asymmetry in the transfer of energy. There must, in short, be a “direction” in which the energy tends to transfer (at a statistical level). The most sophisticated statement of this directionality is what Robert Ulanowicz has called “ascendency.” Its most basic components, however, are already to be found in autocatalysis.

In fact the asymmetry of autocatalytic exchanges is exhibited in numerous ways, so I will address only one of the most striking here: centripetality.²³ Returning to the *Utricularia floridana*, suppose the periphyton were starved for phosphorous and the *Utricularia* changed to increase its ability to take in more phosphorous, this increase in activity would also be reflected in the growth of periphyton. That growth in turn would (likely) attract more zooplankton, which would nourish the *Utricularia* further. In short, an increase in one component of activity is reflected and rewarded by an increase in the other activities as well. An autocatalytic process, in

short, is able to become a centripetal vortex of resources, amplifying its effects as it functions. The result is that autocatalytic processes not only recur, but they tend to recur in such a way that their activities are amplified (barring significant external disturbances).

The link from the asymmetry of autocatalytic exchanges to development is through information theory. In this branch of mathematics “information” is understood as the lack(-ing) of indeterminacy, or increase of determinacy. If one were tracking phosphorous transfers in a part of the everglades, then the growth of an *Utricularia* plant in that part would structure the possible pathways (the “flows” as ecologists call them) that such transfers could take along the above (simplified) autocatalytic process. This increased determinacy may thus be understood as information. What information theory allows ecologists to do, then, is track the *changes* in information (the changes in indeterminacy), just as physicists track changes in physical motion, per unit time. If these changes in information can be understood to follow a pattern, if it can be demonstrated that there is a pattern to the increase and ultimate senescence of information for an autocatalytic network, then it is possible to claim that these changes constitute the development of that ecosystem. In order to explain development, however, one must begin with an explanation of growth as well as a viable way to quantify it.

The beauty of information theory is that it not only allows one to track the changes in autocatalysis, but it allows one to *quantify* them. The “measuring stick” for the organization of an ecosystem is ascendancy, which is itself an index gained by multiplying the products of two other separate indices: the average mutual information (AMI) and the total system throughput (TST). The result is that if one were to track the increasing ascendancy of an autocatalytic network, which increase is just a normal function of autocatalysis, then one would effectively be

tracking the growth of that network. In order to explain growth, then, I shall provide a brief (non-technical) account of the calculations behind each index.

The basic idea behind the AMI is to quantify the difference between, for example, the two following four-component networks.

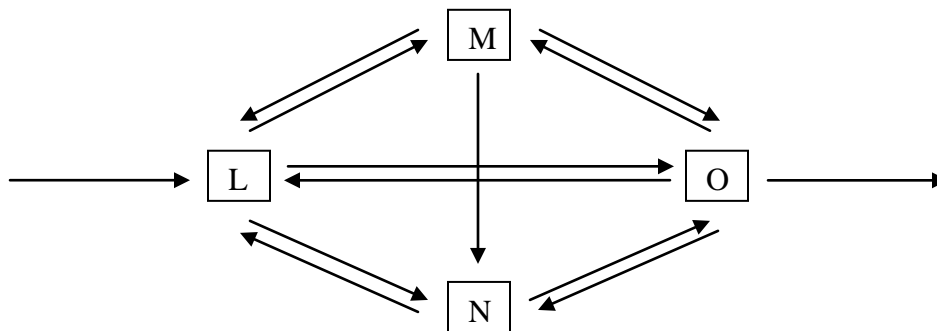


Figure 6.1. Network A

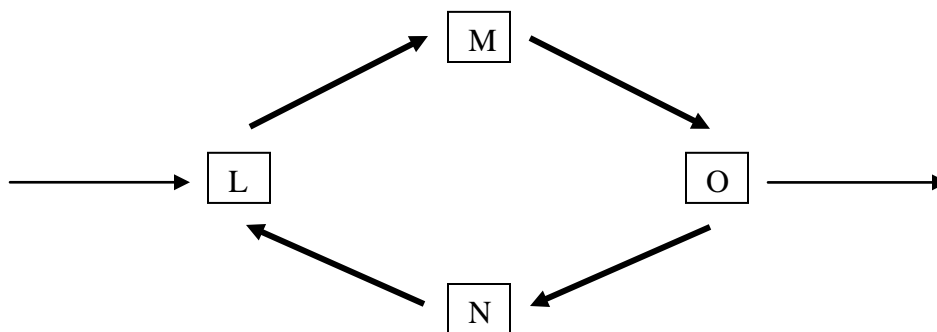


Figure 6.2. Network B

Network A is an inchoate sequence of flows, such that once energy transfers in, it may go almost anywhere conceivable. Network B is a tightly ordered network without redundancy and increased activity (represented by thicker arrows). If a network changed from A to B, then this increase in total activity and pruning of inefficiency would be reflected as an increase in the AMI. One of the major effects of autocatalysis is just this tendency towards pruning and

increase in exchange activity (centripetality contributes much to both of these effects). How, then, does one quantify this change?

Consider the following three scenarios, each with three different distributions of three hundred total units of outflow from some hypothetical compartment.²⁴

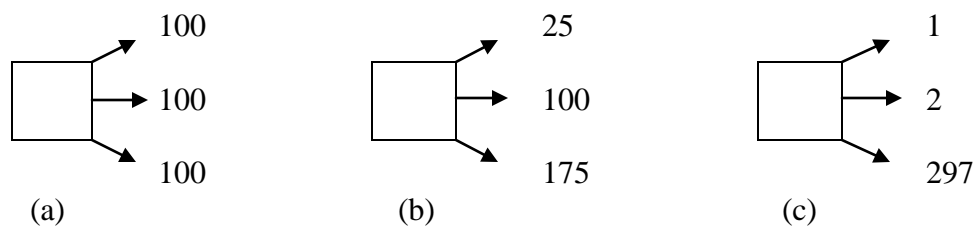


Figure 6.3. Three hypothetical distributions of three hundred units from three compartments

The AMI on each may be totaled as follows. In case (a), exactly one-third of the total flow exits by each route. Keeping in mind that the AMI is a logarithmic scale, if one takes the negative of the logarithm (base 2) of the first fraction (1/3), then that result yields 1.585 bits.²⁵ (A *bit* in information theory is the amount of information required to resolve a single binary decision). Multiplying this result by itself (1/3) yields the measure of indeterminacy (0.5283 bits). One may say that this is a rather indeterminate outcome, since results at either extreme (between 0 and 1) are highly constrained. When the same two calculations are applied to the other two flows (yielding the same result in each case), and all three results are summed, the value one obtains is 1.585 bits. If one raises the logarithmic base used in these calculations (i.e. 2) to this result just obtained, the value is exactly 3.0, which confirms that there are truly three equal flows leaving the compartment.

If one were to undertake the same calculations for cases (b) and (c) the value of case (a), namely 1.585 bits, gains significance. The result for (b) is 1.281 bits, and that for (c) is 0.089 bits. In each case the measure of indeterminacy drops, though in the last case “drops” is rather more of an understatement since the outcome is almost totally constrained. Returning to the first two cases, if one regards these as states as growth from (a) to (b), the *difference* between (a) and (b), which is 0.304 bits, can be regarded as quantifying the intensities of all the constraints that skew the flows to the bottom exit. This difference is the measure of the information embodied in the system, since it will be recalled that information is the difference of indeterminacy. Case (c) would be unlikely to be a more advanced state of (b), but might instead characterize the expected outputs from top predators in an ecosystem, so that almost all their production would leave the system by respiration and very little would leave to other consumers.

The difference between the basic calculation of information between (a) and (b), and what one must undertake in quantifying an ecosystem is that the averaging procedure will be extended to the entire system, and not just restricted to a single compartment. The procedure is more extensive, but not too terribly different in principle.

The reason one cannot use the AMI of an ecosystem alone as a measure of ascendancy is that the resulting quantity is intensive. This is to say that while it provides an accurate picture of how well-organized a system is, it provides no way to understand how big it is. A microbial community in a Petri dish might exhibit a very high AMI, while that of the Serengeti Plains may be roughly equal or even lower. The AMI would be unable to distinguish the two, despite the fact that because the Serengeti Plains is bigger by several orders of magnitude it is more likely to survive. To overcome this deficiency it is necessary to scale the AMI by an extensive index.

While it is possible to scale an ecosystem by aggregate biomass or aerial extent, the relevant data for an information theoretic approach to ecosystems concerns their flows. The following is a schematic of the total suit of energy flows ($\text{kcal m}^{-2} \text{y}^{-1}$) in the Cone Spring ecosystem in Arkansas.²⁶

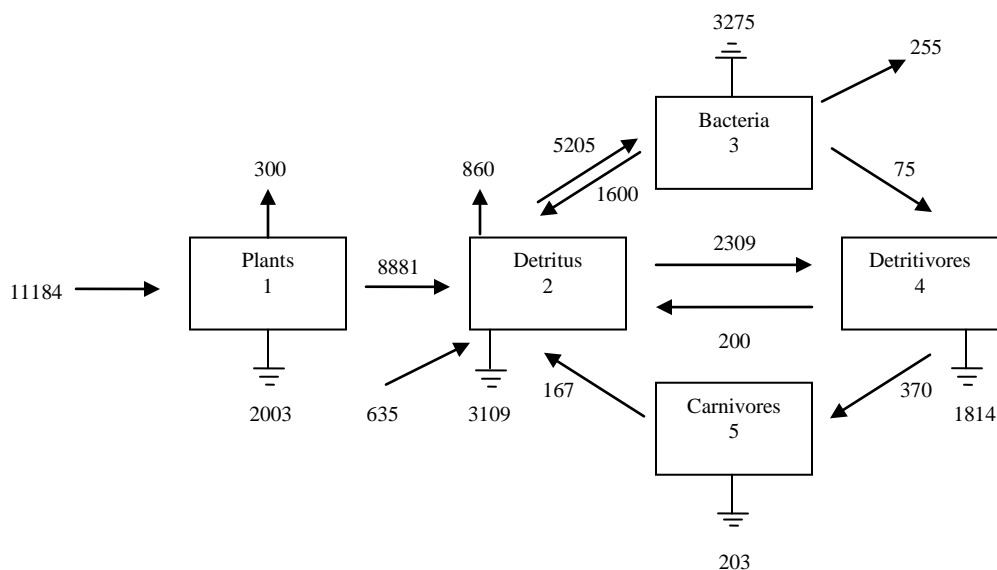


Figure 6.4: Cone Spring Ecosystem

In this case the total activity of the Cone Spring ecosystem is calculated simply by adding up all the magnitudes of the flows. The result is the total system throughput (TST). In this case, the total flow magnitudes add up to $42,445 \text{ kcal m}^{-2} \text{y}^{-1}$.

If one then multiplies the TST by the AMI, one obtains the ascendancy of the system. This figure may be understood to quantify the ability of a system to prevail against real or possible threats through its combined size and organization. By following its increase, then, one can quantify the growth of a system. Additionally, because autocatalytic systems have a demonstrable tendency to prune redundancies and increase their use of resources, they have a propensity towards increasing ascendancy. The growth or “teleology” present here, however, is only relative to itself and not some predetermined (and external) end. The direction is set

concretely by an ecosystem's neighborhood. If there is upward mobility, then it is also an indeterminate one.

(c) Developmental Stages

What has yet to be explained are the patterns of growth that qualify such changes as development, as well as a more determined sense of the endpoint of development. Though the directionality of ascendancy may function as a kind of second-order end, there is much empirical data that suggests ecosystems undergo cycles of birth and death. It is these cycles, as a result, that provide a much more determinate sense of an endpoint to development.

To understand these stages, I must explain why it is that ascendancy does not continue to increase indefinitely. The reasons for this limitation are broadly double: one group of reasons concerns intrinsic limits to ascendancy, the other group concerns the "overhead" of an ecosystem. The first of the intrinsic reasons is that the energy and material inputs to an ecosystem are finite. Although it is true that the TST can increase by recycling even while the aggregate inputs are fixed, the second law of thermodynamics requires that some currency be dissipated on each pass through a compartment. Thus, finite inputs guarantee a finite TST. With respect to the organizational complexity of an ecosystem (its AMI), an intrinsic limit is established because the specification of compartments into further activities (further specialization) at the same time puts those activities at increased risk of succumbing to chance perturbations. Hence, flow diversity will eventually succumb either to intense or frequent (or both) perturbations to the system.

Turning to the “extrinsic” reasons why ascendancy must be limited, I must explain both what overhead is and why it is ineliminable. These tasks require me to make explicit something that has remained latent in the foregoing, namely the four categories of flows extant in any ecosystem. These categories are the following: (1) the inputs of matter and energy into the system, (2) the exports of mass and energy from the system, (3) the dissipations of energy through their exchanges, and (4) internal transfers of energy (e.g. an alligator eating a snake). The overhead, which may alternately be thought of as the inefficiency or disorderliness of an ecosystem, may be catalogued along these four types of exchange.

In order to illustrate just why it is that such inefficiency not only cannot be eliminated, but also in the long run proves beneficial to an ecosystem, it will be easiest to begin with pathway redundancy, which is a form of overhead for internal transfers of energy. The following real case exhibits the point.²⁷ In the cypress wetlands of Florida the American alligator is one of the top predators, and it consumes (among other items) crawfish, snakes and turtles. Snakes and turtles also consume crawfish. There are thus three ways that the energy of crawfish may be transferred to the American alligator, which is represented schematically below.

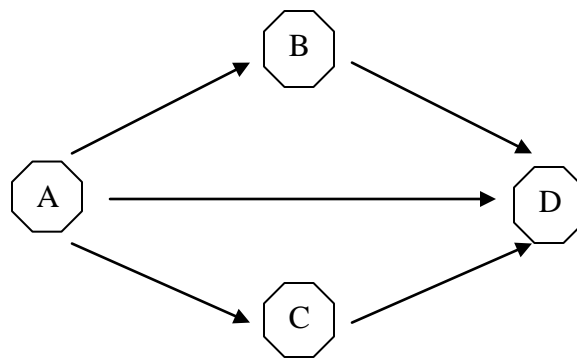


Figure 6.5. A represents crawfish; B represents turtles; C represents snakes; D represents the American alligator

While this sequence of flows is not wholly optimized, one notices that the redundant pathways for food may aid in the survival of the alligator. Should some species specific virus arise that decimates the turtles, then the alligator is still able to eat snakes and crawfish. The disorganization of network pathways (through redundancy) thus can aid the sustainability of the network precisely through its disorganization. The lessons here are two-fold. First, that disorganization or overhead often plays a positive role in the survival of an ecosystem. Second, that this disorganization nevertheless imposes a real cost on the system. To maintain the same amount of energy exchange between two points through multiple pathways requires more overall energy, since at least more energy is lost through dissipation. As a result, internal energy transfers by their very character impose limits on the growth of ecosystems.

Similar points can be made with respect to the other forms of energy transfer. Dissipations, clearly, are an ineliminable feature of energy exchange on account of the second law of thermodynamics. Yet, they also prove beneficial with respect to cellular or sub-cellular process, since most dissipations occur in the form of respiration. With respect to inputs, one can say that the more numerous these are, the more overhead accumulates on account of increased dissipation. But even the increase of energy for a single input increases the overhead (*ceteris paribus*), since that energy must still be distributed over the network. Finally, exports to other systems generate higher overhead by demanding higher levels of usable energy. Though, one should note that if there is a sufficient positive feedback to this exportation, such as might be the case if migrant birds deposited otherwise unattainable nutrients, then even transfer of energy can be beneficial.

The reason I reviewed the character of overhead is that through an analysis of its relation to ascendancy in an ecosystem that one can specify the *functional* growth of ecosystems, which

is to say that one can specify their development. This kind of specification is different from a mere description of the observed birth and decline of ecosystems, since it explains *why* the ecosystems are acting in such observed ways.²⁸ Taken together, ascendancy and overhead measure an ecosystem's capacity for growth (since even overhead contributes to growth). Their interaction spells out the follow four stages of development.²⁹

First, in an ecosystem's infancy, immediately after it has survived a major destructive perturbation or perhaps after invading another domain, it works to increase its biomass at the fastest rate possible. Here one notes a significant split between the ecosystem's capacity and its ascendancy, such that the former outpaces the latter, though both increase abruptly. In the second stage, a kind of adolescence, even as the TST begins to decelerate due to the decline of relatively available resources, flow diversity contributes to a rise in capacity, though ascendancy continues track but lag behind. An ecosystem reaches maturity when selection pressure increases, often limiting flow and biomass diversities. Yet because ascendancy is able to continue, the capacity of the ecosystem remains relative stable. Finally, an ecosystem reaches senescence when ascendancy can only increase at the expense of overhead, resulting in over-efficiency. The ecosystem at this point becomes "brittle" and vulnerable to the effects of external perturbations. Eventually one of these will cause a total systemic collapse, and the release of nutrients often become the resources for the birth of a new ecosystem.

What I hope the foregoing demonstrates with clarity is that ecosystems not only grow, but develop, and this is the case despite the fact that what is developing is not living in the sense of a biological organism.³⁰

5. Emergent Probability

The foregoing scientific description along with the phenomenology of classical and heuristic statistical structures allows me to state (at a first approximation) the world view that results from the foregoing. Lonergan called this view “generalized emergent probability,” and its first approximation is what one may call “emergent probability.”

A note on this terminology proves necessary. One of the key reasons I thought it necessary to specify in some detail just what a scientific approach to ecosystems entails is to provide a number of corrections to Lonergan’s account of world process.³¹ To be clear, then, what is at stake here is the progressive phenomenological elaboration of the tendency towards increasing complexity or developmental capacity. In the present section I shall focus just on what follows from a consideration of the complementarity of classical and statistical heuristic structures. In the following sections (§§6-7) I shall broaden the account to include development.

To avoid ambiguity, by “complementarity” it is intended that the two matters compared are established as (1) distinct, and (2) that they have a positive or amplifying relation rather than a competing one. With this point in mind, I want to note six ways that classical and statistical heuristic structures are complementary in the act of knowing. First, they are complementary *as structures*. The systematic and non-systematic are distinct matters to be understood, so that the heuristic structures that guide insight into them amplify knowledge in these domains. Second, they are complementary *as procedures*. Because they are oriented towards different intelligibilities, one is able to isolate systematic and nonsystematic processes in experiments. For example, a margin of error in measurement might enable a scientist to retain a classical focus in attending the precipitates of a chemical experiment. Third, they are complementary *as*

formulations. This is the case since classical inquiry is oriented towards (usually functional) correlations among sensed data while statistical inquiry is oriented towards events. The result is that while classical laws determine what would happen if certain conditions were fulfilled, statistical laws determine just how often they are fulfilled. Fourth, they are complementary *as abstractions*. While classical inquiry enriches the given by attending to the systematic in sensed data, statistical inquiry enriches the given by attending to the non-systematic. A more complete view of the data, then, only results by following both forms of inquiry. Fifth, they are complementary *in verification*. Following Lonergan, one may argue that the verification of classical laws requires corroboration of anticipated results for the fulfillment of conditions, while that of statistical laws are corroborated if those conditions are fulfilled as often as one expects. Finally, they are complementary *in the data explained*. While both forms of inquiry are oriented data, they are oriented in different ways, and toward different aspects in data. Statistical and classical laws attend to these data in different ways, and thus enrich one's understanding differently.

I turn now to the complementarity in what is known. For simplicity's sake I shall refer to the process of autocatalysis as a "cycle." With this in mind, it will be recalled that cycles form the basis for the identity and growth of an ecosystem.³² Above I argued that the asymmetry of energy flow that follows from a cycle's centripetality was a key factor in this ability to grow. It is germane now to introduce, or at least make explicit, two further features about a cycle. The first is that a cycle acts in a "homeostatic" fashion, so that whenever it is disturbed it tends to restore itself. In the four-part cycle of figure 6.3, suppose that element M became defective. What is likely to occur is that either some other element competing element D will replace it and continue the cycle, or a surrogate M' will come to replace the damaged element, so that the

system “heals” itself. In general, the larger the system, the more likely it is to be able to renew itself after perturbations. The second feature, which may be understood to follow from this homeostatic quality of cycles is that the lifetime of a cycle can exceed its constituent parts. The immediate implication is that analysis of cycles cannot continue indefinitely, and that causation (or at least propensities) and the order that follows must be understood to emerge at distinct levels of inquiry.

These considerations on the complementarity in the known make it possible to state what is intended by emergent probability. A first point concerns the character of the emergence of order that follows from the character of cycles. One might argue that because much of the analysis is statistical, this emergence of order is really only epistemic. Yet, as the foregoing analysis of the complementarity of statistical and classical heuristic structures suggests, this cannot be the case. What is understood in each case is distinct, and whenever one understands some matter correctly, one understands an aspect of being. The result is that the emergence characteristic of ecosystems is *ontological* in character. A second point concerns the propensity to emerge or *the emergent probability itself*. The propensity toward the increased developmental capacity of an ecosystem, through both its overhead and its ascendancy, is itself an insight into the probability for emergence. The proposal here is simply that there is such a probability, and that it may be understood as the likelihood to emerge minus its likelihood for decline (through brittleness, for example). A final point concerns the generality of this emergent probability. Both classical and statistical heuristic structures are employed in the study of ecosystems (one does after all calculate rates of change in analyzing ecosystemic development by means of continuous functions). This means that any intelligibility that finds complementarity in the known through the occurrence of cycles will exhibit similar features. A significant implication

of this claim is that there exists a probability for the emergence of the universe itself. This generic account of ecosystem is what is intended by a *phenomenological* ecosystem (or world), and its emergence probability holds in each case.

A crucial note here is the following. As with the discussion of statistics the term “event” was casually introduced, so too here the term “emergence” been casually broached. On the present construal, then, it makes sense to draw a distinction between “events” and “emergence” so discussed and prior discussions of “events” and “emergence” in the opening chapters of the present essay. In order to avoid ambiguity, let “events” and “emergence” as Badiou and Heidegger might be concerned be denoted by capitalized letters (Events and Emergence), and let the notions investigated by science be denoted by lower case letters (events and emergence). I maintain that there is a connection between the intelligibilities denoted by the capitalized and uncapitalized terms, but the present account of emergent probability has not yet provided that connection. It has only specified how scientists understand events and emergence, and that any similar set of intelligibilities will be similarly understood. While it is my aim to provide an approximation of what is meant by Events in this chapter, I must first address development (the third heuristic structure), in order that I might give a better account of world-process.

6. Development and the Genetic Heuristic Structure

The return to scientific investigation (§4) was occasioned by the recognition that insight into conditioned series of cycles even does not yield insight into such matters as embryonic cellular growth, or the development of an ecosystem such as the Florida everglades. My purpose now is

to articulate the heuristic structure that guides inquiry into development and to integrate that account into the foregoing account of a phenomenological ecosystem.

(a) Development

Since on this matter I plan to follow Lonergan fairly closely, it is perhaps easiest to begin with the most general definition of development that he gives, and then move to its explication. The definition is as follows:

A development may be defined as a flexible, linked sequence of dynamic and increasingly differentiated higher integrations that meet the tension of successively transformed underlying manifolds through successive applications of the principles of correspondence and emergence (I 479).

While development was addressed briefly above, one can see now that in fact much more was intended. I want to begin with the mention of principles, since these serve as the bridge from the foregoing (first approximation of) general emergence probability to an account that introduces development.

The principles of emergence and correspondence are, in many ways, a pair. The familiar principle of emergence just states that otherwise lower coincidental manifolds of events invite active higher integration into conditioned series of (autocatalytic) cycles. For example, in this way chemical molecules are integrated into biogeochemical cycles like the water cycle. The principle of correspondence just states that “different underlying manifolds require different

higher integrations” (I 477). So, for example, not all animals have the enzymes to digest tree bark, though termites do possess them, because they ingest large amounts of bacteria while young and those bacteria continue to live in their digestive tracks. In this way certain biotic cycles can be integrated into the higher zoological cycles, and by unique higher integrations. There is of course a certain amount of flexibility to this correspondence, since the same higher integrations can have different underlying manifolds, but the point is that if certain underlying manifolds are eliminated then so too are their higher integrations. This is, after all, the basis for the catastrophic decline of an ecosystem.

Yet, beyond the flexibility of the principle of correspondence, there is also a double flexibility to development: minor and major. The minor flexibility of development concerns the way in which developing conditioned series of cycles (e.g. tadpoles) may move towards the ultimate aim of maturity along different routes (e.g. different rates of growth) in response to environmental conditions. Critical to this account of minor flexibility is what Lonergan means by “successively transformed manifolds.” By this he means to identify the self-modification at work in development. For example, in the development of a tadpole from a single celled organism to a full-grown adult amphibian, the organic and biological processes within that original cell produce new quantities of biochemicals that in turn transform the cell (by transforming its underlying manifolds). This transformation, by the principle of correspondence, in turn sets the conditions for the emergence of new and distinct processes, and so on. The major flexibility of development concerns a shift in the objective of development. In biology the familiar name for this kind of development is called “speciation,” while for ecosystems one might argue that it could be called “change of climate.” In such a case, then, the successive transformation of underlying manifolds changes the whole sequence of change itself.

The apparent tension between these two forms of development (one requires a relatively fixed objective the other changes it), is resolved if one recognizes that higher integrations are only partially characterized by their underlying manifolds. The result is that while higher integrations successfully integrate lower complex manifolds, they may also find adaptive solutions to their larger milieu as well, in which case they may speciate or change climate. These points explain why Lonergan speaks of a “linked” sequence of successively transformed manifolds.

(b) Developmental Heuristic Structure

Because the foregoing analyses of classical and statistical heuristic structures have numerous similarities, it will be easiest to analyze the genetic heuristic structure by comparison.

As both classical and statistical heuristic structures anticipated specific process, so developmental heuristic structure anticipates a specific process, namely development.³³ While classical heuristic structure sought “the nature of ...,” and statistical heuristic structure sought “the state of ...,” developmental heuristic structure seeks “the sequence of ...” Because the intelligibility sought by the classical heuristic structure was broadly continuous, it hoped to specify “the nature of ...” by identifying functional correlations among sensed data. Because the intelligibility sought by the statistical heuristic structure was stochastic (i.e. manifolds of coincidental aggregates of events), it hoped to specify “the state of ...” by an ideal relative frequency. What is immediately different in the case of the developmental heuristic structure, then, is that it does *not* seek a mathematical intelligibility. One can think, for example, of the sequence of cellular growth or the above four stages of ecosystemic growth. Neither of these

intelligibilities is inherently mathematical, though they may be specified rigorously and even quantified. Given a skeleton, for example, and a sufficient knowledge of anatomy, development, and teratogenic formation it is possible to discern the muscular structure of that being.

Because the developmental heuristic structure does not seek an intelligibility that is inherently mathematical, some care must be made to attend to the generic way in which this inquiry is undertaken. Noting first the similarities, one finds that like both classical and statistical heuristic structures it exhibits a scissor-like character (I 486). Unlike the other structures, the way in which both are performed differs substantially. Three considerations are pertinent from the top down. To begin, one finds not the kinds of anticipations given structure by differential equations, but the already implicit anticipation that development moves from generic indeterminacy to specific perfection. One may witness this anticipation even in ecosystemic development, since it is the (relative) equilibrium of developmental capacity and ascendancy that characterized a mature ecosystem. Next, one may say that this anticipation of developmental direction is complemented by an anticipation of a general mode of operation in which lower manifolds of events are expected to be successively integrated into higher operations. For example, one expects that the expansion of an ecosystem to include a new animal will not only mean that larger predators have a new source of food, but also that these schemes of predation will have successive effects on the character of the ecosystem such that overall developmental capacity increases. Finally, the developmental heuristic structure anticipates the field in which development occurs, which is their general tendency to increase systematically.³⁴

Turning to the specific characterizations that move from the bottom up, one notes that the procedure follows, in generic fashion, five steps. First, a subset of an ecosystem is analytically

inspected. The foregoing description of the Everglades shows this holds true whether those cycles inspected form an organism or a grassy plain. In an organism, an example of this procedure would be a dissection conducted in order to discern the anatomy. For a plain, a similar approach is taken by specifying the relevant boundaries of concern, the ecological features of the terrain, the average weather patterns, the populations of fauna and flora, etc. Second, inquiry is undertaken to understand the *function* of the parts analytically discerned. Third, these parts and their functions are grasped in their cyclical interrelation (which is the key to establishing the presence of an autocatalytic loop). Fourth, one moves to understand what Lonergan calls the “integrator,” which is the intelligibility that grasps *why* those parts are related to each other in that way (e.g. by understanding the physical and chemical manifolds underlying cellular mitosis). Finally, this last step is iterated to grasp the *successive* interlocking of the cycles, which is what constitutes development. In Lonergan’s terms, one comes to understand the “operator” of the development.³⁵

Because the final aim of the bottom-up movement of the heuristic structure of developmental inquiry is to identify the linked sequence of operators, it may be claimed that the developmental heuristic structure seeks not the rather vague “sequence of ...” but instead “the linked sequence of operators of ...” a developmental sequence.

I want to let this brief analysis of genetic structure stand for now, since it only makes sense to develop its points through an integrated analysis of ecological world-process. Since it is precisely this process that will enable me to locate the existence of the inexistent, I wish now to broach these matters together in the section that follows.

7. Toward Events

The foregoing account of developmental process and developmental heuristic structure leave me with two tasks. First, I need to integrate these matters into the above account of emergent probability to provide a full account of generalized emergent probability. At the same time, second, I must also show how generalized emergent probability, which is my generic account of world process, is both open to “radical change” and possesses an “inexistent.” This second task is necessary in order to meet Badiou’s challenge that any ontology not committed to a ghostly form of presence must be open to Events. It will be recalled that Events have three parts: (a) an inexistent, (b) a radically discontinuous change, and (c) intervention. The inexistent is the site of possibility for the emergence of an Event. In short, in order for there to be Events, it must be shown that any world contains within itself the possibility of an Event. The radically discontinuous change is precisely what marks Events as radically new and hence as not sustained by a form of presence. I leave a full account of (c) to chapter nine, when I have reviewed the character of world process with human culture.

A particular goal in providing an account of inexistents and radically discontinuous change is to establish a proposal that does not suffer from the deficiencies discussed in the second part of *The Inexistence Problem* as developed in chapter two. Recall that for Badiou it is always the existence of some contradictory matter that opened way to radical novelty. The difficulty with this criterion is that at least the context of scientific Events, rational resolution to problems is thus made totally impossible (only exhaustion and coercion were suggested as possible methods of resolution). In what follows, then, I want to make use of Lonergan’s conclusions on world process in order to isolate a generic account of the inexistent that will not

have the difficulties that afflict Badiou's position. If I accomplish this much I will have demonstrated the relative superiority of the present account to Badiou's, at least with respect to this matter.

(a) Ecological World Process

I begin with a preliminary characterization of world-process as developing in five points.³⁶ First, one will recall that in characterizing an ecosystem, both spatial and temporal boundaries were critical. The foregoing suggests that these spatial boundaries are to be understood as conditions for cycles, since without operative prior cycles later ones prove to be an impossibility. Space on this view, then, is not simply a matter described by reference frames, but concretely specified in terms of the distribution of possibilities of occurrence. In a similar fashion, since the concern is the probability (i.e. propensity) of the emergence of conditioned series of cycles from other cycles, time, especially long intervals of time, proves to be a necessary condition for low probabilities to occur. Second, there is a significance to the absolute numbers of occurrence, since a high number of occurrences of events offsets a low probability. Third, there is operative in any ecosystem a selective significance for probabilities of survival. For example, if the probabilities for both emergence and survival are high, then a cycle is both likely to occur and it will be enduring. Fourth, because the survival of one cycle depends on that of another, stability for an ecosystem is guaranteed just in the case that cycles are both common and enduring (this is just what developmental capacity is meant to measure). Fifth, the possibility of development is conditioned by a different combination of outcomes than that of stability. For while common and enduring cycles are likely to be stable, they may equally undercut the probability of the

emergence of new phenomena. This is the case, for example, with the noble gasses, which, while stably integrating their lower coincidental manifolds, at the same time cut off possible chemical interactions. It is when the probabilities for emergence are high and those for survival are low that the conditions are set for emergence. For in that case the emergence of one conditioned series of cycles is unlikely to inhibit the emergence of another.

A whole array of points follow as a consequence from the foregoing, and I want to highlight those that suggest that world process, understood as a series of ecosystems, which are in turn nothing more than (a) conditioned series of cycles, (b) their probabilities for emergence, and (c) the intelligibilities that explain their linked successive transformations, is an *open* developing process. By “open” in this context I mean a process that can accommodate not only change, but radically discontinuous change.

To begin, it is to be noted that the intelligibilities that support the present account of world process are those anticipated by concrete convergences of classical, statistical, and developmental heuristic structures. Classical laws alone “offer no insight into numbers, distributions, concentrations, time intervals, selectivity, uncertain stability or development,” while statistical laws “make no pretence of explaining why there are so many kinds of events, or why each kind has the frequency attributed to it” (I 147). Additionally one finds a convergence of both these structures with the developmental heuristic structure, since neither the investigation into the kinds of events nor their concentrations and distributions provides an account of the linked sequence of their development. The foregoing analysis of development and the present account of generalized emergent probability, thus require the complementarity of these heuristic structures. *An ecosystem, in short, is what one understands by the knowns and complementarity of the knowns of these structures.*

A second consequence of this point is that world process is a succession of ecological situations, characterized (a) by actually recurring conditioned series of cycles, (b) probably conditioned series of cycles, which is just the intelligibility grasped by insight into the propensity of cycles towards greater developmental capacity, (c) possible conditioned series of cycles, and (d) the successively linked sequence of the development of those cycles.

In the third place, because none of the possibilities of world process is assured, and because there are in fact both a large number of events (considered absolutely) as well as a sufficient span of time, world process is impressively differentiated.

In the fourth place, world process admits of blind alleys or ecological cul-de-sacs. This probability results from the fact that cycles with a high probability of survival may at the same time stymie the emergence of other cycles.

In the fifth place, world process admits of breakdowns and ecological collapse. Since no cycle has more than a probability of survival, there is equally a probability of collapse. Because earlier cycles condition later ones, the collapse of earlier ones means that there will be a collapse of later ones. Some cycles are known to condition a very large number of other cycles (e.g. the existence of the sun conditions a very large number of trophic cycles on the Earth). Should the former collapse, so also would the latter.

In the sixth place, world process is likely to develop in increasing systematization. Even in the case of highly unlikely ecologies, “the emergence of those [cycles] can be assured by sufficiently increasing absolute numbers and sufficiently prolonging intervals of time” (I 149). To express this insight in other terms, it may be claimed that major transformative processes have an upwardly mobile but indeterminate order, which may be called “finality.” The specifically developmental twist is that integrations are either static or dynamic. My point earlier

was that the noble gasses, which dominate their lower manifold of sub-atomic physics with complete success, might be an example of static integrations. By contrast, dynamic integrations not only systematize their underlying manifolds, but also do so by continually modifying it until (by the principle of correspondence) the existing integration is eliminated and (by the principle of emergence) a new higher integration is introduced. If development is the linked sequence of such dynamic higher integrations, then finality expresses the indeterminate directedness of major development.

As a final point, I note that “finality” is a phenomenological notion and not a scientific concept. Ulanowicz developed both an account of ascendancy and the propensity towards increasing developmental capacity. Finality differs from both these concepts, since it prescind from the complexities that would specify the determinate probabilities (i.e. the calculations required to specify the TST, AMI and levels of overhead) and is instead specified through the complementarity of the heuristic notions that guide such inquiry. It is, in short, a generic notion.

(b) The Inexistent and Radical Novelty

I think the foregoing is sufficient to establish that world process may be definitively characterized as *radically* open.

Above, I noted a difference between actually occurring cycles, probably occurring cycles, and possibly occurring cycles. For Lonergan, “in all its stages world process is the probable realization of possibilities,” and these possibilities are stated to depend “solely on a consideration of classical laws” (I 149,143). For Badiou, I suspect, this position would debilitate any claim to *radical* change. Since statistical frequencies understand only the (ideal) “how often” of

occurrence, and development only tracks the linked sequence of growth, he would claim that in principle there is no possibility for altering the possibilities of such a universe. And since for him an Event is an occasion of discontinuity among possibilities, I doubt he would agree that there is any room in the foregoing account for Events.

The matter of discontinuity here is particularly important, so I want to spell out a few points about it in order to further specify the account given in chapter three. By the phrase “radically discontinuous change” I intend an inverse insight which grasps that one intelligibility cannot be explained in terms of another intelligibility. At a slightly less generic level, and one which is more appropriate to the present concerns, I mean that given two conditioned series of cycles A and B, such that B emerged from A, and equally given full knowledge of all classical laws and all events requisite to understand A exhaustively, it is not possible to explain the process of B in terms of A.

In response to Badiou’s concerns, it seems undeniable to me that the foregoing account of world process is open to radically discontinuous change. The reason for this judgment is that the limits set by classical laws are mere conditions and not upper bounds on the character of world process. Because world process is defined through classical, statistical, developmental processes as well as the intelligibilities that anticipate them as well as their complementarity, the possibilities of world process are ultimately to be understood only by those that are occasioned through the functioning of actual world process. If ecosystem world process is still defined as the probable realization of possibilities, then those possibilities do not have the character of a fixed set of notions (possibly infinitely many) that may or may not be realized. While systematic process is everywhere the same, the realization of world process is unique. Once some world process is instantiated, the possibilities that emerge from it are equally unique. Should that

process cease to exist, then so too will those possibilities. There is, then, in our universe some number of narrow windows of opportunity that are not subject to reproduction no matter how much time passes or the number of events that occur.

Badiou characterized the inexistent in terms of unrepresentability within a world. Ecosystemic processes *are* representable, but their existence indicates that the possibilities they open are never representable in advance of a given world situation. Finality, or the upwardly mobile but indeterminate order of the universe, does not even indicate that all possibilities *might* be realized, because there simply is no “all” of such possibilities. It indicates, instead, the fragile trajectory of world process—one which is always open to the possibility that it might lose its unique chance, or perhaps gain it. At base, because finality is only the succession of probable realizations of possibilities, there is nothing to dictate which cycles will emerge next. In Badiouian terms, there is included in every ecosystem some number of inexistents, not in the sense that they are a contradiction of existing world process (which was seen to be problematic), but in the sense that so long as the universe continues to be characterized by the processes discussed here, each ecosystem opens the probability of radically new cycles that are discontinuous with past world events, and which are not at all even possible before actual existence. One may say, then, that all those possibilities *inexist* in our universe.

Because possibilities *inexist* in our universe, it is entirely possible for changes to realize those (im)possibilities. Such was the case, for example, when biological life emerged on the earth, when formerly there were only chemical and physical processes. Such was also the case when humans emerged on our Earth. Both of these processes, and others, may be considered radically discontinuous changes that realized the *inexistent* possibility of actually occurring world process. Both, then, constitute radically new forms of being.

As a final point, and in line with Lonergan's argument, the present accounts of generalized emergent probability, inexistence, and radically discontinuous change are generic. The account of the in-existent presented here is much too general to make sense of the specific forms of eventual truth that Badiou has in mind, and so this much only forms a broad response to the critical demands that began the present inquiry.

8. The Fragile World

The present chapter has been an attempt to answer two questions. First, how does the third model for hermeneutics yield an account of the world? And second, how does the same model provide an account of inexistence and radical discontinuity, which are necessary in accounting for Events? I have answered these questions by undertaking a phenomenological analysis of both the generic character of the knowing and the known that is produced by contemporary scientific accounts of ecosystems. My proposal has been that one should understand by "the world" or by "the universe" a conditioned series of ecosystems, where each ecosystem has present systematic, non-systematic, and developmental processes. This suggests that the divisions of the world follow the divisions studied by scientific inquiry, namely physical, chemical, and biological process. The reason for this is that non-systematic process opens the probabilities for the emergence of cycles that operate on higher ontological levels, and that these higher levels are not reducible to lower levels, which serve as their complex underlying manifolds. But even beyond these points, it suggests that there are psychological ecosystems, socio-cultural ones, economic ones, and so forth. Taking one further step, and I have not provided the grounds for this conclusion yet, one suspects that even epistemic practices such as

physics or philosophy exhibit an ecological character. Finally, it is even possible that persons can be understood in such a manner, though the matter is exceptionally complex, and I shall not be able to address personhood substantially in the present work.

In any case, I have decided to jump ahead of the argument so that a clearer picture of world-process might be presented. One may understand it as a series of ecosystems conditioned on other ecosystems: the physical serving as the complex underlying manifold for the chemical and organic, those in turn serving as underlying manifolds that produce “natural” ecosystems such as the Everglades, and so on. I note, however, that the conditioning of ecosystems so understood often have a mutually conditioning character, and as a result do not have a straightforward or linear progression of development from physics to, say, the economic or the cultural. One of the main reasons I chose the Everglades as a case study for series of ecosystems was just because in its very history it is impossible to divorce abiotic, botanical, zoological, and even human ecosystems. It becomes impossible to say, then, whether the Everglades condition the human ecosystems, or the reverse. The best one can do is say that in certain respects the Everglades ecosystems include the human, and in others the human ecosystems include the Everglades.

Because ecosystems may be taken to be embedded within other ecosystems, the present account, like Heidegger and Badiou, holds that the world is made up of worlds. On account of the existence of non-systematic process, however, there is no world of all worlds. Unlike Heidegger, then, there is no experience, such as angst or boredom, which brings the whole of the world before my (pre-)comprehension. Unlike Badiou, the reason why I argue that “there is no whole” does not turn on a commitment to ZFC, but instead on the simple existence of non-systematic process, which, while setting the conditions for further process, is itself unique. It

thus makes it impossible for there to be a total number of possibilities of world process, even in principle.

Three other clusters of further points are of particular interest. The first of these has been made more familiar on account of the popularization of ecological study, though often the points appear to be misstated. If the present account of the world as a series of ecosystems is an adequate description of our universe, then it suggests that world process is in some sense holistic. There is no absolute perspective from which a distinction of nature and culture can be maintained, in which human activity can be divorced utterly from the natural. Similarly, the familiar distinctions between the individual and the collective or the institutional and the practical are not distinctions that hold absolutely. To be clear, there are grounds for these familiar distinctions. The goals of an individual in the short term may not be the same as those of the society in which he is placed, and those of a society may not even be good, but the legitimacy of such divisions rests on a suitably restricted scope of analysis to some particular cycles or some particular sub-ecosystem. Also, because of this quasi-holism, full-scale reductive analyses are bound to fail. For example, I have already argued that human consciousness just is not reducible to its complex underlying neurobiological manifolds. Given the present account of world process, it is likely that similar divisions appear elsewhere. Again, this is not to suggest that analysis of correlated conscious states and neurobiological states is misguided, only that the hope to reduce one to another is problematic, since it appears to be founded on a simplified notion of the world, which does not consider the complementary relation of systematic, non-systematic, and developmental processes.

Second, by understanding world-process ecologically, a pluralization of space and time is suggested. While classical inquiry has produced an account of space-time according to general

relativity theory, because there is more to world process than just these intelligibilities, there is also a more specific sense of both space and time. I noted that space in an ecosystem may be understood as the distributions of conditioned series of cycles which provide the possibilities for the probable realization of further reality. Time, in a similar fashion, may be understood as the absolute number of eventual occurrences such that those probable realizations become likely. These are both more relevant senses of space and time to world process than Einstein's quite accurate account. One of the most interesting consequences of this analysis is that because world process is unique, there is no reversal to the arrow of time. Similarly, on account of the existence of non-systematic process, its complementarity with classical and developmental processes, and their complementary recurrence and the mutual conditioning through cycles, spatial distributions of ecosystems present possibilities that, if begun again, simply will not return. In short, ecological space, understood as the distributions of possibilities, is unique because the conditioned and recurrent cycles that make up that space are unique. So despite the numerous stories of time travel, and even the attempts by physicists to make sense of such notions, the relevant sense of returning to a prior time or place or traveling ahead to its future is founded on a category error, which mistakes one sense of space and time for another.

Another consequence of these considerations on space and time is that there is a reciprocal relation between actuality and possibility, since the possible sets the conditions for probable realization, and the actual realization sets the conditions for further possibilities. The implications of this thesis may be spelled out variously. It is perhaps the case that the most fundamental distinction of classical metaphysics, from Aristotle through at least St. Thomas, was that between potentiality and actuality. When Heidegger argues in *Being and Time* that "Higher than actuality stands *possibility*" he thus attempts to reverse two millennia of metaphysical

consensus (BT 38/63). Heidegger's insight has since formed the foundation for multiple strategies that would reverse metaphysical accounts of ethical and political action, even religious conceptions of God. The present considerations, however, suggest that *both* Aristotle *and* Heidegger have presented inaccurate accounts. In either the absolute or the relevant sense, there is just no priority of actuality over possibility or possibility over actuality. This is just what it means to conceive world-process as *radically* open. Another way to spell out this thesis is to state that the actual world is the only one that we get. There is no left-over reserve of possibility that might yet be actualized after certain cycles cease to exist. Just as one may yet find love again after the death of a beloved, so there might yet again emerge similar cycles, but there is no way to recover lost time, space, or possibility.

In the third place, the account has remained impersonal and, because it has attended to first-person consciousness as it inquires, phenomenological throughout. This impersonal world, then, is markedly different from the world Heidegger describes in *Being and Time*. Yet, one must also note how different it is from Badiou's avowed impersonal world. While his account totally eschews first-person consciousness, the only way he is able to argue for radical change is by the activities carried on *by subjects*. It is true that these subjects take vastly different forms from those of ordinary speech. Political subjects, for example, are not the "animals" ordinarily called "humans," but the collections of forces that bring about an eventual change in a political world. They may thus "live" several hundred years or even be resurrected (i.e. is a political movement is taken up again). Yet, because Badiou limits Events to the four categories of art, politics, love, and science (and their compossibilization in philosophy), there is not present in Badiou's account a subject that exists apart from human "animals." This means that Events are not possible without "human animals." By contrast, under the present proposal, the emergence

of the Everglades or even the Earth in the solar system may be considered an Event—even before there were “human animals.” At the same time, and like Badiou, there may be human Events, such as the emergence or collapse of various economic ecosystems.

The foregoing also enables me to provide a much needed specification among events, Events, and emergence (I leave a positive account of Emergence to chapter nine). For the present essay “events” and “emergence” retain their scientific meaning as occurrences and as the novel coming to be of some phenomenon. By an “Event” is intended an occurrence which is localized with respect to a world’s inexistence, is a form of change that is radically discontinuous with that world, and follows a marked pattern in bringing about novelty. With respect to this last matter, which is what Badiou calls intervention, the present account holds that there are three forms. First, I maintain that in the case of natural events, such as the emergence of the Everglades in southern Florida, this intervention is marked by the presence of new conditioned series of cycles, their possibilities, and the progressive realization of some of those possibilities. In short, one can only say that a natural Event has occurred if there is some series of observable traces, such that the work or intervention that sustains the Event may be considered the positive realization of those traces. Second, there is the distinct possibility of catastrophic Events. I have argued that in nature the decline of an ecosystem may be considered part of its “life cycle,” though this is not always the case. Should the Atlantic Ocean’s water level rise too much, the Florida Everglades will cease to exist and this fact will hardly be the result of brittleness or over-efficiency. In the case of catastrophic Events, then, their occurrence is marked by the lack of possibilities engendered by the conditioned series of cycles that formerly sustained the ecosystem and the progressive degeneration of such cycles (such as was the case when the credit system collapsed in the 1930s). The final form of Evental intervention is human, and it was

precisely this three part process of wagering, verification, and transformation that I reviewed in chapter three in discussing Ricoeur's thought. Articulating the last two possibilities more fully, as well as providing an account of Emergence remain weighty tasks for the present inquiry.

Still, beyond setting tasks for the following chapters, the present chapter has taken a few steps towards the goal outlined in the introduction to this work, namely to advance from a philosophical articulation of the knowledge gained in epistemic practices to wisdom, understood as a worldview. If the first part of the Trans-modern worldview that I am hoping to articulate turns on the Evental shift towards the recognition of the necessity of contingency in both the world and in our best epistemic practices, then its corollary notion turns on an articulation of the fragility of the world in which we live. One aspect of this fragility that I have noted is the way in which non-systematic processes open up possibilities that are unique, and which vanish when the underlying manifold does. If humans are such fragile processes, then they are both unique and so are the possibilities they engender. The death of a child may wound one's life irrevocably, for no human can take the place of another. The betrayal of a lover may shatter one's existence, since the possibilities of these relations will be forever lost. Even beyond these points, and on a different scale, the uniqueness of world-process suggests that the direction of the universe is itself a unique one. Some possibilities, once vanished, will simply never return—for better and for worse. Providence, if there is such a thing, is anything but determined.

There is a third point concerning the fragility of the world that is worth noting, namely that there are limits to the increasing systematization of the world. Just as a probability can be attached to the emergence of cycles, so too can a probability be attached to the decline of basic ecosystems. Furthermore, just as the absolute number of occurrences and a long span of time ensure that even small probabilities for emergence become likely, so too do these same two

points suggest that the small probabilities for collapse are in the long run a likely occurrence. When this insight is synthesized with the other two points of fragility, I think the immediate consequence is to have established a double-limit to the character of world-process. First, it appears to be a virtual certainty that large scale possibilities will disappear totally—whether this is the possibility of a planet, or of a human culture. After then Encounter of the pre-Columbian Amerindians with the Spanish conquistadors, it is not simply the case that many millions of people died. It is also the case that any of the possibilities of those cultures were wiped clean from existence, never to return. In the long run, such catastrophes appear to be likely occurrences. Second, it indicates that there are restrictions on the final amount of systematization of the universe. In short, the upward mobility might very well stop. One way to think of this scenario is by entertaining the notion that the second law of thermodynamics is wholly correct and that no further considerations apply, so that eventually nothing of the universe as we know it will remain. But in a vein more in line with what has been developed here, one should understand the point as one that suggests that there is likely to be a collapse of upward mobility such that the basic conditions for the return of that mobility are equally annihilated. These points are, given our present understanding of the universe, certainly remote probabilities in the short run, but not in the very long run.

The implications of this double limit, then, affect what hope one might have for eternity. If Badiou's purpose in redefining the subject was to provide a plausible account of eternity that might be accessible to those who are not theists, then the present considerations suggest that it is deeply misguided. A very long such type existence may indeed be possible, but not an eternal one. If Cantor's insight into the infinite redefined the very character of the finite, what it has not done is aid in providing a plausible sense of the eternal apart from divine considerations. This

wish, perhaps humanity's deepest and most long-standing hope, appears to be something about which philosophy has nothing directly to say.

Let these four considerations stand as a preliminary account of what is meant by "the fragile world."

7

Human Worlds

“Liber will noch der Mensch *das Nichts* wollen, als *nicht* wollen ...”
 -*Genealogy of Morals*
 Third Essay, §28

The aim of the present chapter is to show what sense there is to distinguishing between natural and human worlds. In classical terms, I must provide an account that distinguishes between *phusis* and *nomos*. Moreover, the foregoing ecological account of the world only makes sense if it is possible to understand “natural” ecosystems *without* drawing distinctions between abiotic and biotic cycles, the latter of which are taken to include both human action and human artification. What grounds are there, then, for retaining a distinction between the human and the natural?

My proposed answer is a simple one: it is the existence of *meaningful* ecosystems that makes the world human. Unfortunately, this proposal rather more complicates the matter than resolves it. By introducing the topic of “meaning” into the present account of worlds, I have at the same time introduced another problem, since “meaning” may be taken in multiple senses, ranging from simple syntactical relations among formal systems to the existentially meaningful. In the present chapter, then, I shall primarily address meaning in its signifying dimension. This is to say, I address how items in the human world may be taken to signify dimensions of social reality. Why, for example, is a stop sign part of an institution rather than mere metal and paint? Why is it that if I do not pay attention to this painted metal object I am breaking the law? Why does a police officer have the ability to write me a ticket for *not* paying attention to that sign? As this last example illustrates, an important point here will be to account for the existence of power in social reality. This is the case not only because it makes up a salient feature of social reality,

but also because it is only by broaching this topic that the present account provides grounds for understanding political Events.

Yet, beyond these points, I shall also establish grounds by which one may recognize the possibility of artistic Events through symbols and I shall note how scientific revolutions are to be accommodated on the present construal of worlds as ecosystems. These matters will enable me, then, to make a case for the increased scope of the present proposal to account for Events vis-à-vis Badiou's proposal. I shall also be able to tackle the character of *The Inexistence Problem* especially with respect to science, which I argued Badiou's proposal manifestly failed to address.

As always, the present account will follow the path of a corrigible phenomenology. I shall here continue to make use of Lonergan and Ricoeur's insights, but I shall also draw rather extensively from the work of John Searle to provide a basic account of social reality. Searle is, of course, a defender of first-person intentional relations, and while he does hope for a high-order theory of consciousness, rather than a one level account, I think that his statements on the topic of social reality do not turn on any commitment one way or another on that divide. With respect to power, I shall look rather briefly at Michel Foucault's work, not only because he made ground breaking insights on the matter, but also because his approach to discourse is quite similar to Searle's. Over a series of letters the two came to recognize the commonality of their approaches.¹ Since Ricoeur openly makes use of Austin and Searle, the movement in the chapter from Ricoeur to Foucault is methodologically consistent. The need to provide additional methodological arguments, then, is obviated. Finally, I leave a discussion of human meaning as existentially meaningful as well as human history as topics for the next chapter.

1. Meaning as Signification

Because my basic hypothesis is that human worlds are distinguished from natural worlds through an added meaningful dimension a certain kind of puzzle emerges. Why is it that when I make noises by causing air to pass over mucous-covered cords in my larynx this physical act is usually taken to be a meaningful one? Or similarly, why is it that when black marks are put on a page in such a way that they follow purely arbitrary rules, they become meaningful marks? In short, how does one get from physics to semantics?

Loneragan's basic point, and it is one that I think is correct, is that one does so *through insights*, usually analytic insights. These insights are the ones that *define* the marks as meaningful, and no amount of explanation will magically transmute physics into semantics without appealing to one's basic need to "catch on" to what the marks are about. At base, then, language is founded on intentional acts, and just the kind discussed in chapter four. Beyond Lonergan's analysis, however, much remains to be said. In particular, one might want to know the answer to questions such as: what is the smallest unit of linguistic meaning? Is there a smallest unit? Does the "fixing" of utterances as recorded statements change them somehow? Is the ideal of meaningful discourse univocity or not?

It is in order to answer these questions that I turn to some of Ricoeur's best work on the philosophy of language. Because so much of his work draws explicitly from J. L. Austin and John Searle's speech act theory, it will also prepare a natural transition to my later use of Searle's analysis of social reality. For now, however, I shall focus on how two distinct realms of meaning can be identified, which I call signifying meaning and existential meaning.

(a) *Discourse and Signification*

Ricoeur's famous argument is that language is best approached as discourse, which retains the ancient problematic raised by Plato in the *Cratylus* and Aristotle in *On Interpretation*. The most basic insight in the ancient approach to language, Ricoeur argues, is that "[t]he *logos* of language requires at least a name and a verb, and it is the intertwining of these two words which constitutes the first unit of language and thought."² In a rough way, one can claim that for Ricoeur it is the sentence, or at least syntactically ordered words, that forms the minimum unit of linguistic meaning.

While Ricoeur never provided the following grounds as support for his position, one can find much corroboration for this thesis in contemporary neurobiological and linguistic study. It is well known, for example, that higher primates exhibit an ability to use sign language and communicate with humans. What they do not exhibit is a sense of *syntax*. Koko the lowland gorilla who can purportedly sign more than a thousand words, for example, may indicate that she wants a banana by signaling: "banana, banana, me, me, banana." While it has been noted that these primates may understand prepositional terms and auxiliary words, what they lack is any sense that word order is meaningful. This lack of word order is characteristic of protolanguages, in which strings of words such as "John kissed Mary" are not distinct from "Mary kissed John," or "Kissed Mary John."³ From a purely linguistic point of view it is not accurate to claim that there is *no* meaning to a protolanguage, but only that the meaning of words alone in no way resembles human language.

In the study of linguistics it is generally agreed that syntax has three components: discreteness, compositionality, and generativity.⁴ Because it is syntax that marks the difference

between Ricoeur's approach to language and that of structuralists or post-structuralists, I pause to broach these points briefly. Discreteness concerns the way in which words (and morphemes) retain their identity despite recombination. Unlike the baking of a pie, in which the three apples I put in it along with the sugar, cinnamon and whatnot merge and lose their identity, I cannot have a sentence with, say eight and one-half words. Compositionality is what addresses the difference between sentences such as "John kissed Mary" and "Mary kissed John." If sentences contain meaningful words, then it is the arrangement or inflection of those words that affects the meaning of the sentence. Finally, generativity concerns the capacity by which syntax allows a full language to produce infinitely many different combinations, and even an infinite length of statements. William Faulkner is credited with having written the longest sentence in the English language, but one could of course top that sentence's length by adding an introductory clause such as "Faulkner wrote:"

It is his commitment to the sentence, or in Austin and Searl's language the illocutionary act, as the basic unit of meaning that sets Ricoeur at odds with structuralist and post-structuralist theses on language. The reason he finds space for their analysis is his recognition that the event of discourse *is fundamentally transformed once it is fixed*.⁵ Once discourse has been distanced from its event of occurrence through fixation in language (usually written but not always), the intention of the speaker or author no longer remains the exclusive determination of meaning. It is in order to recover the significance of such fixed discourse that the hermeneutic arc of inquiry must pass through the various long roads of suspicion and pertinent alternative interpretations. Viewed in this way fixation *liberates discourse* from mere intention so that it can find full articulation in this interpretive process.⁶

These points, I think, outline the basic answers to the questions posed above. What is the smallest unit of linguistic meaning? As discourse the smallest unit may be considered the illocutionary act, which is usually a sentence (though within a given context a single word such as “yes” may function as such a sentence). This is not to say that single words, even as discursive events are not meaningful, but only that they do not supply the basic criterion for meaning as language (as opposed to proto-language). On the other hand, once discourse is fixed a purely semiotic analysis is legitimate, provided one recognizes that it is not a *total* answer. The old Derridian critique that Ricoeur was not daring enough to effect a *syntactical* reduction, then, is simply wrong headed. Ricoeur fully grants this point, he only objects to the totalizing claim that deconstructions make with respect to linguistic meaning. Human language is just not constrained by the meaning of words alone as Derrida might like, so that the legitimacy of his readings of texts is only a provisional legitimacy. These points, then, suggest that the “fixing” of discourse has a *productive* effect. Finally, because interpretation of such fixed meaning is never finished, univocity holds no specific privilege, though it is legitimate in certain domains.

(b) Discourse and Existence

What remains to be addressed, however, is another kind of ambiguity that emerges when one considers the different meanings of the word “meaning.” Consider the following examples as a suggestive array.

1. Sylvia, you mean the world to me.
2. Obama’s election means that race relations are ameliorating in the United States.

3. One can never know the meaning of world events such as 9/11 at the time of their occurrence.
4. Shakespeare's metaphor "time is a beggar" means something to the effect that "time is always lacking, or that "there is never enough of time."
5. The Spanish sentence "Esta lloviendo" means "It's raining."
6. When Eduardo said "Esta lloviendo" he meant "It's raining."⁷

My concern so far has been to address instances of the last two kinds, for it is these cases that furnish the grounds for claiming that physical marks or utterances are indications of something to be understood. It is these kinds of meaning that I shall address in detail in the present chapter as they provide the grounds for the existence of social reality. Yet, the first four cases are the ones that make that reality existentially meaningful. Respectively (1) concerns personal meaning, (2) and (3) concern the meaning of historical existence, and (4) concerns the meaning one finds in symbols, metaphors, literary texts, and the arts generally. On my reckoning, then, there are four crucial distinctions in the meaning of "meaning," namely personal meaning, historical meaning, symbolic or artistic meaning, and signifying meaning. I shall outline the transition to these later stages in three steps, leaving a fuller explication for the next chapter.

The first step is made by averting to the distinction between explanatory and common sense knowing. While social reality may be known either through explanatory or common sense insights, existential meaning is available only through common sense. It is meaning that is determined solely in relation to us, and this is why, for example, statistical analyses of literary works tend to be unhelpful in finding their significance.

The second point centers on the peculiarly polysemic character of this exclusively common sense meaning. No philosopher of science will today argue that *all* scientific terms are univocal. Even mathematicians and logicians are content to allow certain terms a range of ambiguity. A fruitful example in this last case might be the current debate concerning the domain of universal quantification. In this case, it is generally agreed that there are various restricted domains over which universal quantifiers range, but it is a matter of dispute whether there is some absolute domain over which they *could* range (set-theoretical considerations being bracketed).⁸ In this last case, one finds something that is peculiar to explanatory approaches to polysemy: usually evidence of its occurrence proves to be grounds for competing explanations. Beyond this point, total cases of equivocation are sometimes matters of scientific revolution. The terms “space” and “time,” for example, are strictly speaking equivocal with respect to Einstein’s and Newton’s accounts. In logic the matter is somewhat different, since differences between, for example, Aristotelian quantification and Frege-Russell quantification may be explained as merely differences between different logics. In short, it may be admitted that total equivocation is possible at the formal level, but it is with respect to their actual truth that the most heated controversies are sustained.⁹ My point, then, is that with an explanatory approach to meaning, polysemy is tolerated in various degrees, but is generally avoided.

By contrast, the move to existential meaning finds that the polysemy of terms is not only irreducible but *productive*. This point is the heart of Ricoeur’s insight that “*le symbole donne à penser.*”¹⁰ The myths of sacred works are symbols that, if one takes the path of reflection, give rise to new thought. Furthermore, it is precisely the meaning of these symbols that has been the source of existential meaning for the majority of human kind throughout the whole length of its existence. This is why Ricoeur argues that symbols, metaphors, and texts have a second-order

reference. This reference is not only to social reality, but social reality *in its existentially meaningful dimension*. Even fantastical characters in fictional worlds have a referent in *this* sense. One might thus add a corollary aphorism to Ricoeur's as follows: humans *live* by symbolic meaning.

The third step is made by recognizing that existential meaning emerges in two ways. One is through simple care about a matter—through *Sorge* as Heidegger would have it. The other is through normative or ethical value judgments. Caring about something, for example, does not make it symbolic, but it does make the matter existentially meaningful (and regardless of whether I *should* care about it). I shall spend some time next chapter fleshing this thesis out, but for the moment, I think it serves to indicate in what way existential meaning differs from symbolic or merely signifying meaning. Having established this brief outline, it makes sense now to focus on the human world as it is opened in these first two dimensions.

2. Social Reality

Because assenting to the existence of social reality can make one appear to be an absolute idealist, it is probably best to begin with a simple example.

Buying a Twinkie. John goes to fill up his car at a gas station. While there, he recognizes he feels hungry and decides that among the various items one can find at a gas station convenience store, the best he can do is settle for a package of Twinkies. He walks up to the clerk, pushes the package across the store counter, and the clerk tells him the amount he needs to pay. At this point, John reaches

into his pocket, and removes a slip of paper, made mostly of cellulose and died various colors with inks. The clerk accepts the slip of paper, hands John a few more in return along with some metallic circular pieces, and then lets John walk out the store with the food.¹¹

Why is it that for a piece of cellulose the clerk allows John to leave the store with “real” (if not very nutritive) goods? The answer, clearly, is that the paper counts as money in our contemporary culture, and it counts as money because we think it counts as money. But these answers just raise more questions. How is it that there can be an objective reality that exists only because we think it exists? To heighten the matter even more, why is it that we cannot simply “opt out” of recognizing it? Why is it that the clerk cannot say, “Well *you* think that is money, but it isn’t to me.” John would be justified in these circumstances to say that the clerk is simply mistaken. It is a *fact* that it is money, and the clerk’s denial is a mistake. Social reality, then, seems to exist every bit as independently of our particular desires and wishes as do physical laws. A final odd point is that while social reality requires our thoughts to exist, it has determinate physical results. John receives a meal (of sorts) and the clerk can use his wages to pay for shelter. How exactly, then, does social reality interact with physical reality?

(a) Common Sense and Belief

As a first step in answering these questions I return to Lonergan’s distinction between explanatory and descriptive knowing. Last chapter I noted that explanatory knowing is of such a kind that it grasps an intelligibility among things to each other. The functional correlations

among sense data that physics establishes serve as an example on this score. I also noted that descriptive knowing is of such a kind that it grasps matters as related to us, but I did not say much more about this point. This matter is what I intend to explicate here.

Like the form of inquiry that scientists, mathematicians, and logicians undertake, the inquiry that directs common sense matters has its own heuristic structure; *it asks after successful ways of living*.¹² The content of the knowledge, once gained, concerns matters of knowhow, such as how to drive a car or how to use a microwave oven, as well as insight in the spatial and temporal arrangements of one's environment, such as knowing where the supermarket is or how to coordinate one's actions to meet a deadline. It is by this knowledge, then, that one knows that a certain piece of cellulose counts as money in a particular context. In short, it is a specialized form of intelligence, one that even the scientist must use in navigating her lab. It is the form of intelligence which consists of an incomplete set of insights about particular and concrete matters. It is for this reason that people often treat common sense as a public store of knowledge and act bewildered when a person seems to be lacking any of these insights. The incompleteness of the set is overcome when one adds to it the insight of a specific situation, which then enables one to act in that situation. For example, dollar bills count as money in the United States of America, but one must exchange them for Pesos in Mexico, since they do not count as money in the same way there.

A consequence of the concrete orientation of common sense, then, is that it does not generalize, save by rules of thumb, and it does not develop technical terms. The former is strictly impossible, since each new situation requires a different set of insights, and the latter is by the same reason made unnecessary (*I* 199). This means that common sense is more differentiated than logical, mathematical, or scientific inquiry. Since for every difference of

geography, occupation, or social arrangement there must be new insights to complete the incomplete set of common sense knowledge. It is on account of this tremendous differentiation that one encounters the awkwardness of foreigners in a new land. One does not know the social arrangements so that, for example, what is considered polite in one circumstance is offensive in another.

Though common sense is guided by an heuristic structure, like scientific inquiry, the canon that governs the pertinence of one's questions differs significantly. Since the aim of common sense inquiry is to enable one to live successfully, questions that do not resolve how one is to achieve one's daily tasks or discover immediate solutions to problems are to be proscribed (*I* 201). As the scientist rightly rejects the philosopher's metaphysical questions as not pertinent to her inquiry, so the man of common sense rejects questions or solutions that do not address his immediate needs. Such is the negative heuristic of common sense. It does not consist of an explicit set of statements, ones even that could be discovered retrospectively, but of a general orientation of prohibition that functions in a way much more like proverbs.

A peculiar point must now be addressed that common sense, logical, mathematical, and scientific knowing share: the role of belief in acquiring such knowledge. Everyone is familiar with the fact that children ask questions rather spontaneously (*I* 197). Developmental psychology inquires explicitly after just this point, desiring to know such matters as at what age children generally ask which questions, or when certain forms of awareness develop. Examples of this last case include object permanence and social recognition (i.e. awareness of the other's awareness of oneself). In addition to this point, however, it is also the case that children do not make all of their insights into common sense on their own. Parents and teachers can help children by throwing out hints to find solutions, but they can also just tell them answers that the

children will have to accept as a matter of belief. Why is the sky blue? There are a number of ways to answer this question, but explaining the whole electromagnetic spectrum, properties of light diffraction, and rates of absorption in full scientific detail is pedagogically ineffective for young children. Yet, the role of belief is hardly confined to children. For example, one does not pretend that the world consists only of those areas one has been to visit oneself. Instead, one believes that the earth has those features a map indicates in order to navigate territory that one personally does not know.

To generalize further, I note that belief is not something even confined to matters of common sense. Any trained scientist accepts much on belief, since no scientist has the time to reproduce *every* experiment that supports the conclusions that make up her repertoire of knowledge. This point is different from accepting that certain matters are not directly testable. To accept, for example, Einstein's tensor field equation of general relativity, without undertaking the experiments that support this equation for oneself, is to believe it. In this case one does not have (probably true) knowledge strictly speaking, because these conclusions are not reached immanently by going through the experiencing, understanding and judging to reach a probably true conclusion for oneself. Collaboration in belief, then, is simply a fact, and it saves each person from literally needing to reinvent the wheel (*I 726*).

(b) Elements of Social Reality

Up to this point I have established some grounds by which one knows social reality, namely through common sense, as well as that the structure of the acquisition of common sense insights, which includes a component of belief. It needs to be stressed, however, that one can know social

reality though explanatory means, as the study of economics suggests, though perhaps most of it is known by common sense. I want now to touch briefly on the makeup of social reality with some help by Searle.

The analysis of social reality that Searle proposes is simplicity itself: social reality consists of three basic components, which, when combined and iterated, account for all the phenomena generally recognized as social. These three elements are (a) collective intentionality, (b) an assignment function, and (c) constitutive rules.¹³ His point concerning collective intentionality may be grasped by considering the following scenario.

Lifting a Table. Adam needs to move a heavy table to another room for a conference. At first he attempts to lift it by himself, but recognizes that he will need some help. He calls two friends, Jason and Katherine, to assist him. Together they lift the table and manage to set it in place for the conference.

This mundane scenario calls to attention a simple question: how does this social cooperation occur at a phenomenological level? Is it a matter of mutual belief among the three friends, which follows a pattern that is finally analyzable to the beliefs of individuals, or is there present here a matter of collective intentionality? Under the former construal, the structure of intentionality follows the pattern: “if we intend to do something together, then that consists in the fact that I intend to do it in the belief that you also intend to do it; and you intend to do it in the belief that I also intend to do it. And each believes that the other has these beliefs, and has these beliefs about these beliefs, and these beliefs about these beliefs about these beliefs ... etc., in a

potentially infinite hierarchy of beliefs.”¹⁴ Under the latter construal, the three friends individually have the simple intention: “we intend to lift the table.”¹⁵

There are, I think, two arguments that support the latter option. The first is the familiar argument from fitness. As the reader may verify personally, in occasions such as these, one is not aware of any hierarchy of beliefs, and if ever one’s intentions were to take an explicit form expressible in words it would be much closer to a simple statement “we intend ...” that conforms to the account of collective intentionality. The second addresses the theoretical objection that collective intentions seem to commit one to the existence of some Hegelian *Geist* in which we finite minds participate (somehow). As Searle points out, however, no such substance need be posited. *Individuals* with the intention “we intend” are sufficient. The point is that the *intention* is collective, not that the ontological substrate is.¹⁶ And since the present work is conducted as an impersonal phenomenology, I need only add that this collective intention is equally compatible with real ontological individuals as it is with phenomenal self representations *pace* Thomas Metzinger’s account.

The assignment function serves as Searle’s second building block. The insight concerns the observation that humans and some animals possess the capacity to assign functions to objects. People walking through a forest might stop and sit on a fallen log, thus assigning it the function of a bench. Chimpanzees can use sticks to gather fruits they might want to eat. Or, to return to an example from the first chapter, it is possible for a camper to use a stone to hammer in a tent stake. Assigning functions to objects is the requisite capacity to use tools, and these functions equally do not exist without humans or at least not without assigners of these functions. As the comparison with the first chapter example suggests, there is some proximity here with Heidegger’s sense of Being (*Sein*). Where Searle’s account differs from Heidegger’s insight on

this score is that for the latter the Being of an object is both prior to its ontic existence and free of normative evaluation. For Searle, by contrast, there is no priority here. In fact the opposite is in a way the case, since Searle argues that the existence of these functions depends on humans and thus supervenes on biophysical properties. Additionally, he is explicitly clear that when a function is assigned to an object a normative dimension appears. “Causation,” he writes, “is observer-independent; what function adds to causation is normativity or teleology.”¹⁷ The argument for this point is that once one understands what an object is for, which is precisely what an assigned function provides, then it becomes possible to evaluate better and worse types of such objects.

I agree with both of Searle’s observations here, but some caveats need to be noted. In the first case, it is clear that the present argument must not follow down Heidegger’s path of subordinating physical objects to their meaningful or functional dimension on pain of running up against *The Regression Problem*. Still, in support of the general account of hermeneutics defended here, it is maintained that while the one supervenes on the other, the supervening phenomena are not thereby considered less real or less important. Similarly, it must be noted in Heidegger’s favor that the functional or meaningful aspect of objects is not normative in a strong sense. I may use a hammer as a paperweight, but since it is a rather cumbersome object judge that it is a bad paperweight. This normative judgment, however, does not carry anything like the apriori force of a categorical imperative, so that it remains an open question whether this normativity is “ethical,” at least in the more common sense of that word. This point is crucial, since a subset of assignment functions are what Searle calls status functions. These are the functions responsible for the existence of human institutions, such as the financial or the political. To reinforce the split between ethics and the normativity at work here, one need only

consider an obvious case. National Socialism took institutional form during the Second World War, and it is the case that Adolf Eichmann was a “good” Nazi. This evaluation follows from the recognition of the function of National Socialism, but it does not follow that Eichmann was a “good” person in the ethical sense of that term. It is for reasons such as these that it is perhaps advisable to state that assignment functions introduce a *meaningful* dimension to existence in the hermeneutic sense, rather than “norms,” which are only norms in a very weak sense.

The final point concerns constitutive rules. One can draw a distinction between two types of rules: regulative and constitutive. Examples of the former are the traffic laws. People drive their cars, and in order to avoid crashing, it makes sense to try and regulate the way people drive. Regulative rules thus regulate *preexisting* practice or naturally occurring phenomena.¹⁸ The paradigmatic example of constitutive rules is to be found in a game like chess. Here it is not the case that pieces were naturally moving around, and then someone decided to regulate this movement in order to avoid collision. Rather, the rules of chess are what make the game to exist at all. Constitutive rules thus constitute the phenomenon they regulate, and in this way bring them into (social) existence.

It is with constitutive rules that one enters into the domain of phenomena that are totally social, and it is from these rules that institutional facts exist. Searle’s famous argument is that these rules have a single logical form: “X counts as Y in context C.”¹⁹ It is important to recognize that the Y term in this kind of statement names something more than the sheer physical features of the object named by the X term. If it did not, then, one would have a physical rather than a social fact.²⁰ Because the X term is not sufficient in itself, and the Y term must specify the new status of the object, continued collective acceptance is necessary for the phenomenon to persist. Finally, the context of the “counting as” is in general not difficult to discern, though it

may be the case that it is in the blurry lines of context that one finds the source of many contemporary political disputes. What, for example, does it mean to “count as” an “Hispanic?” If one takes the narrow legal definition of the term, one will find that it varies from nation to nation, so that the context is ambiguous. Yet, even assuming there are no better definitions available, a case such as this only underlines the correctness of Searle’s account rather than undermines it. The reason is that according to the logical form he proposes, where the context is ambiguous, the status of the social phenomenon will be too, and this is precisely what we find in the case of “Hispanic.”

At this point the basic features of Searle’s account are in place, but the mechanism of their interaction has yet to be specified. The task here concerns the matter of “scaling up” from the basic elements to our complex world. Searle argues that only two components are needed for this task.

First, the structure “X counts as Y in context C” can be, and indeed almost always is iterated.²¹ We can impose status functions on entities that already have status functions imposed on them, and we do this quite often. An iterated structure, then, has the following form: X counts as Y in context C, and in this case X itself is another status function of W counting as X in a context C. Take presidency for example. In order to be eligible for presidency in the United States of America one must be a citizen. Citizenship is itself a status function. Yet, when someone wins a presidential election, that person becomes both a citizen and the President. There is a pattern to this iteration, which Searle summarizes as follows: “We create a new institutional fact, such as marriage, by using an object (or objects) with an existing status-function, such as a sentence, whose existence is itself an institutional fact, to perform a certain type of speech act, the fact of whose performance is yet another institutional fact.”²²

Evident in this last example is the second component of Searle's mechanism for scaling up: "*there can be interlocking systems of such iterated structures operating through time.*"²³ In the pattern Searle lays out, it is clear that even in cases such as marriage, not only are status functions iterated, but also they are interlocking, since language is one set of status functions, and the legal another. For Searle, however, it is important to note that the interlocking character of status functions operate through time. I do not just have money now; I have it in my bank account and expect to be able to draw from it at a later date. Without the temporal dimension, it is unclear how institutions would exist.

3. Ecosystems and Human Reality

The foregoing establishes the outline of Searle's account of social reality. While I think that much of it is correct, some readjustment seems to be warranted. My objections all center on what I have been calling Searle's account of "scaling up."

To begin, I note that there is a basic problem with iteration: the intelligibility of the relations among constitutive rules it provides is static. In themselves, static accounts of relations are not problematic. One of the most popular conceptions of set theory, for example, is the iterative account, which construes the meaning of sets by their dependence on each other.²⁴ This is not a problem for sets, since the character of V is not taken to be one that changes. Social institutions, by contrast, undergo change all the time, and an iterative account of constitutive rules does little to capture this feature of social reality. It enables one to understand an institution before and after its change, but the change itself remains unintelligible. Even if one admits the interlocking character of iteration and their temporal perdurance, these features do not shed any

more light on this kind of relation, since the existence of an institution through time here is taken to be only a property of the constitutive rule, not an account of its diachronic existence. In short, if it is desired at all to have an account of social reality as dynamic, Searle provides no grounds for understanding it.

A second related point concerns the way that social facts tend to have a life of their own *independent* of the will of everyone involved. For example, consider the way in which an economy can tumble precipitously against the desires of everyone involved. No one wants rampant inflation or a depression, but these phenomena do occur despite these wishes. If social phenomena exist only because people, or at least the right people (those with authority), have a collective intention that X counts as Y in a context C, then why is it that we, or at least the right people cannot just will these effects away?

Searle does offer two responses to this kind of question. First, he acknowledges that it is possible that institutional facts “may proceed without the participants being conscious that it is happening according to this form,” namely by constitutive rules.²⁵ “As long as people continue to recognize the X as having the Y status function,” he writes, “the institutional fact is created and maintained. They do not in addition have to recognize they are so recognizing.”²⁶ Second, he acknowledges that institutions may be maintained by habit, and so are subject to sudden and unpredictable collapse. His example is the collapse of the Soviet empire. In that case, he writes, “[t]he fear of Soviet intervention was no longer credible, and the indigenous police and military were unwilling to attempt to maintain the system. In the GDR the army refused to fire on the opposition even when ordered to do so.”²⁷ Institutions structured by habit, then, are subject to precipitous declines or at least changes.

What remains puzzling even with these responses is that Searle appears to be admitting that certain portions of social reality, even its most salient features such as the economy or political institutions, exist apart from anyone's will or cognizance. "Habit" plays a totally unexplained role here. Are "habits" collective intentions? If so, how exactly? If not, then it remains unclear how all of social reality can be reduced to the mental intentions of individual people with "we" thoughts.

The solution to both these problems is, I think, as follows. First, I think that social reality fits the description of a conditioned series of ecosystems, which means that it is understood by the heuristic structures outlined last chapter and exhibits classical, statistical, and developmental processes. The constitutive rules of reality itself are, by definition, classical in kind. The frequency of their occurrence, or observation, may be understood statistically. Furthermore, it is certainly the case that human culture grows or develops, the operators of which are intelligent human actors, groups and institutions. The special caveat here is that it is a matter of political discernment (in the best case scenario at least) to specify social reality's goal or function.²⁸ Thus, certain cycles condition other schemes at regular intervals, and are subject to statistical divergence as well as the probability for developmental emergence or decline. This point is much like Searle's own claim that assignment functions are iterated, interlocking, and temporal, but it additionally determines the dynamics of their changing interaction as well as the intelligibility of their change. Additionally, I note, because the present account argues that social reality fits the description of a conditioned series of ecosystems, it follows that any ecosystem of social reality must contain an inexistent.

Beyond this last point concerning the inexistent, the proposed replacement might sound rather innocuous. Yet, it has in fact an enormous significance for the metaphysics of social

reality, namely that social reality *is not* merely a mental phenomenon. Rather it is a phenomenon that supervenes on intentional states as well as physical and linguistic ones.

Recognizing this supervenience clarifies the remaining concerns. Since social reality is something beyond mental states, it is not something that anyone can change just by thinking differently. This is why economies collapse against the intentions of all involved, or, and here is the point that really needed to be addressed concerning the Soviet empire, continue to exist even though very few want them to do so. Phenomena such as racism and sexism are quite salient examples on this score. Additionally, this insight explains how social and physical reality can “mix,” as when the clerk allows John to leave the store with real nutrients in exchange for dyed cellulose. The problem is false, since it is not a matter of “mixing.” When one grasps a fact of social reality, one grasps an intelligibility that supervenes on physical and mental facts, so those aspects of the universe are already thought together.

At this point, then, all our initial questions about social reality have been answered. The building blocks of social reality are established as well as the structure of their relation, which allows them to supervene on mental, physical, and linguistic facts. These points, then, explain the *how* of social reality. Second, their supervenient character explains why it is not possible just to “opt out” of recognizing their existence. Finally, because I maintain that the being of social reality is an additional supervenient dimension of existence (in addition to physical and mental reality) that requires the others to exist, it makes sense that it will have determinate physical *and* mental effects as results.

An obvious feature that is missing from the present account, however, is the status and role of power within social reality. Any Event in social reality reconfigures the power relations available in a society, and nothing has been said on this score. For Searle, power clearly enters

whenever status functions exist, because these institutions, by definition, are precisely those invested with capacities for action in social reality. Still, even in Searle's most recent work on institutions he has failed to account for any other form of power than institutional power—what Foucault calls sovereign or juridical power. The foregoing, then, provides the ontological warrant for a transition to Foucault's account of power, which notes the existence of two further forms generally called Biopower. In order to complete this account of social reality, then, I shall look at his work on these points especially as he investigated them towards the end of his life.

4. The Birth of Biopower

Foucault's account of Biopower is not something that was ever worked out systematically and it is simply not clear how or *if* he would have attempted to unify the account. Nevertheless, I shall provide both an account of the divisions of power Foucault suggests in his late work, and propose a way in which these distinct aspects of power interact. I emphasize, however, that they only interact, and it is crucial to the present argument that they are not unified. The impasse identified there will prove to set the conditions for my own proposed unification (§5).

A schematic account of Foucault's position on power shows that power is fissured, with sovereign power on one side and Biopower, broadly understood, on the other. This latter division, however, has two of its own divisions, that between disciplinary power, and what Foucault also calls (rather confusingly) "biopower." To distinguish between Biopower as a category and biopower as a subdivision, I shall capitalize the former and not the latter. To clarify these distinctions, I turn to Foucault's texts themselves.

In the second session of his 1975-6 lecture course entitled “*Society Must be Defended*” Foucault reviews his research up to the present and describes the goal of his project as one that aims to understand not what power is or who holds it, but the “how of power.”²⁹ Further, to address this power appropriately he tells us that it will be necessary “to abandon the model of Leviathan,” that is sovereign power, which asks after *who* holds power and *what* power is generally.³⁰ In his later *History of Sexuality* he explains that the form of power he is after is *not* (a) a group of institutions and mechanisms, or (b) a mode of subjection (e.g. violence), or (c) a general system of domination exerted by one group over another, nor finally (d) a structure or something general.³¹ Instead the mode of power he is after can best be tracked by five methodological rules. First, Foucault sets out to study power at its outer limits or extremities—i.e. not in institutions but its local centers such as the relation of prison inmates to guards. Second, he analyzes power in relation to its object and the effects it produces, not the intention or goal of such practices. Third, since power is not a system of domination, Foucault examines it as it circulates or functions through a network of relations. Power is not a *thing* that someone can have, rather “it passes through the individuals it has constituted;” they are one of its first effects.³² Fourth, power is unequally distributed through its networks of relations. Hence, the best way to approach it is by an ascending analysis—a bottom up approach. Finally, power and knowledge are not exclusively related, but are produced and supported by each other.³³

If one turns now to an historical analysis of power with these methodological precautions in mind, Foucault argues that one can witness a shift in forms of power beginning in the 18th century. This shift, from juridical power (so called because it revolves around the rights of the sovereign, who is a juridical being), to biopower can be captured by the difference between the right “to *take* life or *let* live,” and the power “to *foster* life or *disallow* it to the point of death.”³⁴

First, concerning juridical or sovereign power, the symbol of which is the sword, Foucault writes that it takes place in a society in which power “was exercised mainly as a means of deduction (*prélèvement*), a subtraction mechanism, a right to appropriate a portion of the wealth, a tax of products, goods and services, labor and blood levied on the subjects.”³⁵ Its area of exercise, then, was principally over land and its produce, and its codes of obligation were founded on the physical existence of the sovereign.³⁶ In the case of life in particular, the sovereign was able to exercise his right only as “a sort of right of rejoinder,” if threatened by external enemies (in the case of war) or if his body (physically or the legal code generally) were threatened.³⁷ His right to take life, then, was exercised only indirectly.

The transformation to our normalizing society occurred in two stages, the first of which was the development of a disciplinary society. Foucault argues that too many items escaped both at the top (the level of mass phenomena) and at the bottom (the level of detail) for the mechanisms of sovereign power.³⁸ In response, disciplinary mechanisms were the first to be developed, because they were the easiest. They aimed at surveillance of individual bodies to control and increase their productive force. The techniques ranged from methods of bookkeeping and reports to Bentham’s panopticon. The second, complementary adjustment (i.e. biopolitics) aimed not at the physical body, but at the body of a population. While discipline aimed to individuate, biopolitics aimed to massify.³⁹ Particularly, these mechanisms of power had three new characteristics. First, these phenomena were measured in *statistical* terms with the goal of establishing a certain homeostasis. For example, it would aim to stabilize or decrease the mortality rate of infants over a period of time. A second characteristic, then, was intervention only at a general level—a population. Finally, these phenomena are aleatory if considered individually, and have significance only if examined over a span of time.⁴⁰

In the case of both disciplinary power and biopower, however, a common element circulates: the norm. It can be applied to bodies and populations as one wishes to regularize both. For this reason Foucault suggests that while the two mechanisms of power are distinct, it would be best to understand Biopower as having two poles: one that concerns disciplinary practices and centers on the body as individual, and the other concerns regulatory controls that centers on the body as living population.⁴¹ Understood in this broad way, Biopower is the power of our contemporary normalizing society.

After recognizing the divisions in power Foucault proposes, the obvious question concerns the possibility of their relation. Giorgio Agamben, for example, has proposed his own solution in *Homo Sacer* that attempts to unify all three forms of power through an analysis of the sovereign exception.⁴² I contend not only that Agamben's proposal fails, but that *any* such proposal must fail for the following reason. The stratifications of power, as Foucault describes them in his late work, exist *because* each level of power has a different dimension of intelligibility. Statistical analysis, which provides the sense of *norm* for *normalization* through standard deviations, just does not find anything except chance cases at the individual level. Manuals for discipline do not regulate anything but individual cases. Sovereignty, finally, can only exercise its dominion through laws and existing political institutions (including the military and police).⁴³ Any strict solution to these divisions of power, then, would have to establish a common level of intelligibility among them all, and to do that would require unifying at least non-systematic process with the intelligibilities of common sense. If the foregoing account of these intelligibilities is at all accurate, then, any attempt at such unification is a category error. What *has* happened, however, is that legislators, bureaucrats, advertisers, social analysts, and

many others, have found *half measures* for bringing these forms of power together, and it is to these that I now want to turn.

5. The Rule of the Bureau

Because no one has yet accounted adequately for the relations among the divisions of power that Foucault suggests, the present stage of the argument is a difficult one. Borrowing loosely from Heidegger and Lonergan, I shall try and propose a solution requires me to address two points. First, I need to account for the half measures that exist, which in practice unify Biopower with sovereign power. Yet, I need to do a little extra work not only to explain why these measures have gone unnoticed in the literature on this topic, but also to provide the perspective, the theoretical “lens” by which they become visible (or more accurately, intelligible) at all. Thus, second, in order to provide the right lens by which to analyze the problem, I am going to try to provide an account of the function of technology. This is important, I think, not only because our age is technological and the present aim is to account for social reality, but also because Foucault explicitly and repeatedly refers to Biopolitics as a technology of power. Given these tasks, I begin with the account of technology before returning to Biopower with the perspective that this account provides.

(a) Technique and Technē

The field of technology studies, though relatively young, is one that has begun to blossom quite widely. Both philosophers and sociologists have begun to ask seriously after just what

technology is and what it means for contemporary life. The present focus, however, is a specific one; it aims to understand the relation of power and technology to social reality. This reality is, on a final account, one that is lived and is meaningful in its lived dimension. For this reason, Heidegger's analysis is important to the present approach. Yet, the tactic that one finds in his thought, exemplified by his essay "The Question Concerning Technology," is itself a paradigm of the short road in hermeneutic thought. In the short piece, he moves from some initial considerations in dialogue with the sciences straight to the "essence of technology" as a fundamental mode of existence, the *Sein* of our epoch. Because *The Regression Problem* prevents access to this short road, I shall retrieve his insights as establishing the relevant *questions* concerning technology for social existence.⁴⁴

My wager here is that Heidegger's essay prompts four questions that ought to be answered by an account of technology that hopes to address the existential dimension of technology in social reality. First, certain items such as cell-phones, computers, microwaves, dams, airplanes, etc., but not other such as hammers, plows, scissors, shovels, etc. are to be considered technological. I know this point is contentious, since any Heidegger scholar will argue that Heidegger's point is not to label certain items as technological but to find their essence.⁴⁵ Still, it is easy enough to find Heidegger fingering particular items as technological, and I think he is right to do so. Second, technology has an impersonal or automatic character to it. One might think here of the "technological" way that people are treated as "human resources." Similarly, while this is not his whole point, Heidegger's analysis of *Bestand* (standing-reserve) captures this matter quite nicely.⁴⁶ Third, the world (natural and social) is described as increasingly technological. This is much of what Heidegger means when he claims that technology is a destiny (*Geschick*). Finally, it is assumed that certain disciplines such as

logic, mathematics and science typify technical thinking. Heidegger's later emphasis on cybernetics in particular sustains this point.⁴⁷ In what follows, I shall try and meet each of these points.

Just what is the difference between a hammer and a technological item such as a car or computer? Any tool, such as a hammer, needs a human's own intelligence to make it "run," to make it perform in its capacity at all, and it must be present each time the operation is performed, as well as at every moment of the operation.⁴⁸ This point has too often gone unnoted in the vast literature on technology.⁴⁹ I have to understand, for example, that the hammer needs to hit the nail on its head, that it is best if it is a straight hit (so that the nail does not bend), that only so much force is required depending on the materials used, and so on. A technological artifact, by contrast, "runs on its own," which is to say it does not require any of my own intelligence to get it to perform. I do not have to understand anything about thermodynamics to turn my car on, and it is unnecessary for me to know which memory registers are responsible for which operations for my computer to function. I do not even need to know what a memory register is or that computers use them. I just have to know which button turns it on and it more or less goes from there. Indeed, the set of insights required to "use" the computer is reducible to the set of insights required to navigate the user interface. Such "running on its own," then, captures much of what Heidegger meant by *Bestand*, but it also allows one to distinguish ordinary artifacts from items of technology.

One might thus say that technology is responsible for the well-functioning (and even dysfunctioning) of our contemporary world precisely because it enables people to reap the rewards of much insight without the need of making those insights themselves. It takes one a step beyond belief, where one simply accepts the knowledge of others without reproducing it

oneself, to a domain where it becomes unnecessary even to know what is going on. We are all technicians in the sense that we use technology that we do not understand conceptually—nobody today knows all the details of how every item of technology works. It is this ignorance that makes our current world *manageable*. It is also what separates our world from that in which artisans were predominant. Insight is required at each moment to produce a shield by *technē*, because only tools are used. This is why guilds and apprenticeship are necessary in these matters, and it explains the diminished need for craftsmanship today. In short, the functioning of the world today is made possible by its increasingly technological character.

Finally, I argue that “rational” disciplines are also technological, but only in a very specific sense. First, I pause to indicate a precise sense for “technique,” because this is what distinguishes the present argument from Heidegger’s. By the term “technique,” I mean what is called a “decision procedure” or “effective method” in logic and mathematics.⁵⁰ Even in logic the term is not totally precise, but paradigm examples include mathematical algorithms, such as Euclid’s algorithm for determining whether or not any two positive integers have any common divisor other than 1 (Book VII, Proposition 1).⁵¹ In a colloquial way, one could perhaps think of a decision procedure as something like *a blind procedure followed to reproduce results*.

Turning, now to modern symbolic logic and science, I think one can see how this form of reasoning *in a certain dimension* typifies technique. Unlike Aristotelian logic, which aimed at the laws of thought and sought to distinguish itself from rhetoric and sophistry, modern logic is *formal*. This does not mean that it is concerned with the form of an argument, as Aristotle was concerned with major and minor premises, etc., but that in order to avoid illicit forms of reasoning, it defines a set of marks as without meaning. It then defines rules for the combination of those marks (known as syntax). Thus in classical Frege-Russell logic the functor ‘ \sim ’ may be

defined by the function $\{(T,F), (F,T)\}$, which one can think of as reversing or negating the truth value. Additionally, it is possible by using the notion of a decision procedure to designate recursive functions that will decide truth values. Any formal theory, then, that is both complete (i.e. every proposition is decidable) and consistent is “technical” in the present sense of the term. Any that is not, which is to say any in which it is possible to produce an undecidable proposition, is not technical. Concerning science, then, even if it were possible to formalize it, the discipline would hardly be technical in this precise sense. Thus, while it may be the case that certain dimensions of modern science do qualify as techniques, the ongoing epistemic practices are hardly technical. Whatever Heidegger’s concerns about cybernetics, then, the present account suggests that a more careful analysis of the intelligibilities operative in “modern reason” are not as menacing as he supposed.

One of the most profound implications of technique is that, as the foregoing relation to logic shows, the intelligibility present in it is a series of relations. And just as the relations that mathematicians isolate are applicable to physical space because what is intelligible of physical space is just those same set of relations (the relations are isomorphic), so too the relations of technique may find isomorphisms elsewhere. If certain three-valued logics enable computers to function, then this is just because the relations among the circuitry are isomorphic with a subset of those that are definable by that three-valued logic. Technique, then, can be *objectified* in various items because technique is nothing more than a series of relations that can be realized in any number of forms (e.g. physical, graphical, linguistic, etc.). These considerations yield a definition of technology suitable to the present concerns. *By “technology” it is intended nothing other than the objectification of technique in some matter that establishes an isomorphism between that matter and that set of intelligible, decidable relations that define the technique.*

(b) The Bureaucratic “Solution”

What I think Foucault was onto with his analysis of Biopower was the various ways in which power was being technologized, in the precise sense just established. Disciplinary manuals for the production of docile bodies in the military are nothing but technique, and the same point holds for policies that attempt to normalize a whole population according to a statistical model. *The relevant difference between a computer and Biopolitics, then, is that a computer objectifies technique on silicon, Biopolitics on social reality.* This suggestion, while not present in Foucault’s work, is I think consonant with it, since it clearly upholds one of his major theses, namely that the transformation to our contemporary normalized society occurred by recognizing an “intrinsic limit” to the functioning of power.⁵² Rather than opposing something prior to the sovereign (e.g. natural rights) to his/her/its function, acting against Biopolitical procedures just makes one an incompetent leader. One simply fails to act according to that which will ensure the results one desires. By technologizing power, in short, one ensures desirable outcomes, and so it proves to be an intrinsic limit.

The immediate implication of this thesis is that while Biopolitics *hopes* to ensure full totalization of power as operative in social reality, most domains will never be fully technological. Foucault’s own argument is that other techniques of power were developed because too much remained unregulated, and it can be claimed without any exaggeration that even with the proliferation of further technologies, the measures are not total. Airport security in the United States is a shining example of disciplinary technology, but it is well known that the constant surveillance only makes it *harder* but not impossible to smuggle in contraband. Certain

aspects of this disciplinary surveillance may be technological, but the total process is not. Even “within” a domain of power it thus cannot be claimed that contemporary society is wholly technological, and this is just as one would expect if social reality really is a conditioned series of ecosystems. Still, it is not without warrant to claim that with respect to these domains taken singly, power in social reality is subject to increasing technologization. Furthermore, there *has* been a great proliferation in half-measures that bring the separate domains of power together, and it is to these bureaucratic measures that I to turn now.

There are, I think, two components that prove necessary for bureaucracy to bridge the splits in power in a provisional way. The first of these is through the function of bureaucratic hierarchy, the second is by what I shall call Biopolitical models. Starting with bureaucratic function, I note that it operates over and through large hierarchies of social reality. A familiar chain of command is established that is typical of sovereign power. These hierarchies prove necessary to manage large populations, which cannot be managed informally. What makes these hierarchies bureaucratic is that they concern three items in particular: *policies*, which determine goals, *procedures*, which effect the division and character of labor, and *standards*, which settle what counts as acceptable performance.⁵³ The precision of the policies is critical, since the more efficient the procedures, standards, and controls, the better the goal is achieved.

While the sovereign cannot control disciplinary or biopolitical technologies directly, it is possible to manage these measures bureaucratically through the regulation of Biopolitical models. By a “model” I mean a particular kind of technique, and so a specific set of relations. While the objectification of technique into social reality just is Biopolitics, a model is a specific technique for bridging the split between discipline and biopolitics. A statistical procedure may only regulate the outcome of a population, but it becomes a statistical *model* if it coordinates

disciplinary procedures to produces goals intelligible at the level of a population. I think that in fact this sort of thing happens all the time and that most bureaucratic policies aim to regulate models just of this sort.

To provide only one of the many possible examples, consider the medical specialty known as emergency medicine. The aim of this specialty is to provide physicians with the required training to diagnose and treat patients with acute illnesses, which require immediate medical attention—such as one might find working in an emergency room at a hospital. The way the discipline proceeds, in broad form, is to identify possible illnesses, such as acute coronary syndrome, note its likely causes, and then establish the means for preventing mortality or serious injury. The analysis proceeds by making insights into differences in treatment at the level of a population, and prescribing a disciplinary practice that one should follow to effect the best results.⁵⁴ Often broad policies may be adopted by departments of federal regulation, so that any doctors or hospitals not in compliance with accepted procedures are to be censured and fined. In this way one finds that Biopolitical models condition each other, so that one form of management conditions another. It is this kind of conditioning that makes it possible to unify sovereign power with Biopolitics in the bureaucratic management of Biopolitical models.

What must be noted, however, is that there has never been a plan of bureaucratic management that has bridged all levels of power in a total way. The reasons for this are twofold. First, even where Biopolitical models exist, the range of control is always subject to restrictions. This occurs by the predicted failure rates (e.g. 5% of the population fails to respond to a certain treatment), and the non-systematic divergence characteristic of any statistical intelligibility. Second, bureaucratic management is only partial. Its procedures are general, but particular cases are not. This causes problems for the achievement of bureaucratic aims, since its

regulations must be rigid in order to function at all. Yet if someone notices the ill effects of certain procedures, it is difficult to implement the necessary reform for a number of reasons. Those higher up the chain of command are likely to be totally unaware of the actual results of a policy, and so will be ineffective in initiating change. Furthermore, the suggestions will either add to their work, or worse, make them look incompetent to others who of course are evaluating them by similar standards of performance. Finally, any reformist must convince others not only of the need for change, but one must work against any biases that exist that would oppose reform.

The net result of these analyses is thus two-fold. First, they suggest that there is no iron cage to power or to the operation of technology. Neither is the technologization of domains of power themselves total, nor are the bridges among them. This thesis is tantamount both to the claim that there is an inexistence in *political* social reality, and that reform must work with these often badly established institutions if results are to be recurrent and lasting. Second, and most importantly, I think they indicate the specific way in which power is operative in social reality. Beyond the generic account of the possibility of political Events, the gaps in power just outlined, and the failure to achieve a total articulation even along a single domain, suggests a more specific way in which they occur. This is done by suggesting that any actual form of governance just will not be able to address all problems, so that political actors must intervene to redress the various misrepresentations of social reality by the defunct operation of bureaucratic rule. Lonergan's word for this kind of intervention was "cosmopolis," but one could perhaps understand it better as a second-order account of the need for political resistance that both exceeds and connects with state institutions. Though more remains to be said, I shall let these points stand as an outline the dimensions of political reality and its operation in human worlds.

6. Note on Scientific Revolutions

The transition from the possibility of political Events to scientific Events, may appear a bit abrupt. Yet, though I have delayed this matter until this point, my principal reason for doing so is because science operates only with social reality. It is precisely the existence of the human world that makes possible investigations such as those of Bruno Latour. My point, however, is not to provide a full account of scientific revolutions. Neither shall I broach the related matters in mathematical and logical revolutions. I only want to show why it is that I think (as a probably true judgment) that the present account of cognitional structure and ecosystems enables one to circumvent the inexistent problem Badiou encountered in claiming that his structure of events could account for scientific practice.

The problem, as detailed in chapter two, was that Badiou's account of the inexistent makes disagreement too robust. By requiring the inexistent to be a *contradiction* with respect to the representations of the situation or world, he evacuated any claim to *rational* progression within science (and for mathematics and logic as well). Following Laudan's arguments, I showed that such a position just is not viable. Not only are the consequences absurd, since they reduce scientific knowledge to a kind of miracle, but also they fail to accord with the history of scientific thought itself. How, then, does the present account fare better?

First, the character of my answer to this question is quite provisional. Since the work of Kuhn and Lakatos, the former of which I argued Badiou most closely resembles, studies in the history and philosophy of science have progressed in a double way. In the post-dissensus era that makes up the aftermath of Kuhn and Lakatos, philosophers of science have been much less

concerned with establishing the structural outlines of scientific change. Laudan's work, apart from the Bayesian approach, was some of the last to tackle this matter seriously. The shift has been instead to focus on what was at a time called the "the new experimentalism."⁵⁵ The reasons for this shift are likely multiple, but one must note that Laudan's work has not been challenged as greatly as were the proposals by Kuhn and Lakatos.⁵⁶ Another major motivating factor has been the recognition that experiments themselves have exhibited "a life of [their] own," as Ian Hacking puts it.⁵⁷ While there is a certain theory-ladenness to physical experiments, they exhibit much less than Kuhn and Lakatos suggested. Neither are they taken to be "fallible" in the strong sense, since *something* is definitely taken to have occurred, and to have occurred under very precise conditions. This relatively independent life for experimentation has led the way for most investigation in contemporary philosophy of science. A second major change in the way the philosophy of science has been conducted in the post-dissensus era is that philosophers of science have moved away from a single explanatory paradigm. Popper, Kuhn and Lakatos all held that the revolutions of physics were characteristic of all epistemic revolutions. Popper and Lakatos unflinchingly used their accounts to try and distinguish science from ideology. Yet, the close attention paid to the development of experimental technique and the detailed history of science has made these broad claims implausible.

Second, I am only providing an outline for a *generic* solution for the matter of scientific revolution. Any philosopher of science would rightly balk at my solution, not for being wrong, but for failing to meet the specific requirements for differentiating the particular character of revolutions among the sciences, and the various types of revolutions among these individual disciplines. In short, my proposal in no way answers the full range of questions that philosophers of science raise. The sole legitimacy for the generic form of my argument, then, is

that it answers questions motivated by a discourse on events, which finds its origin in Heidegger's account of *Ereignis*, on the one hand, and Kant's formulation of finitude as the necessary condition for thought, on the other.

In view of these caveats, I now present the case for why my account of scientific revolution fares better than that of Badiou. To begin, then, while I have chosen to address this point in a chapter on human worlds as meaningful in a signifying and symbolic way, this is not to suggest that scientific revolutions are purely linguistic phenomena. Instead, they are occasioned by insights. This means, among other matters, that an epistemic practice, such as scientific inquiry, is an ecosystem, and as such it is subject to emergent probabilities in which new insights might emerge in the form of Events known as scientific revolutions.

In order to establish the warrant for my claim that science is an epistemic practice that functions as an ecosystem (or a world), this would seem to require that one studies it by means of classical, statistical, and developmental heuristic structures. Yet the matter is somewhat different, since my claim is that it is *the inquiry itself* that exhibits these features. Following Lonergan on these points, I note that the cycle of inquiry is itself a conditioned series of cycles, in which lower complex manifolds (sensed data, images, questions, proximate and remote criteria, etc.) serve as the conditions for the emergence of higher-order phenomena, such as direct, inverse, and reflective insights. The functionally linked sequence of heuristic anticipation and provisional answer, coupled with reflective judgment and renewed inquiry, thus exhibits what one might call classical and statistical process. Furthermore, the operator of development in these cases is the desire to know itself, the basic process of asking a question and attempting to find answers for it (*I 555*). The course of scientific thought may thus be understood to exhibit developmental process.

Turning now to a generic account of revolution, or what Lonergan calls the emergence of a “higher viewpoint,” I note three items (*I* 40). The remote criterion of truth furnishes the pertinence with which answers are asked and answered. Following Laudan’s work, one may say that it furnishes the concepts of available beings, the methods by which one should test these, and the cognitive values one pursues when undertaking scientific inquiry.⁵⁸ An inverse insight, then, is one that denies the expected intelligibility founded on any one of these three aspects of the remote criteria. Hacking’s analysis of the emergence of statistical method may be taken to demonstrate that the development of this method is itself as revolutionary as Einstein’s general relativity physics.⁵⁹ Next, it is with respect to either the proximate or remote criteria that one may consider an inexistence to emerge. Often, in science, the term for such an inexistence is an “anomaly,” but the account provided here suggests that an “anomaly” may be any phenomenon that counters the anticipations of intelligent inquiry nurtured by an education in the relevant scientific matters. When an inverse insight is made that recognizes the inadequacy of the questions posed, *and* when a new account is proposed that is able to progress beyond the merely negative inverse insight to the fully complementary range of insights, then a higher viewpoint is said to be established. Certainly this point will require a certain amount of corroboration in scientific inquiry, but beyond this matter it will have to settle disagreement concerning aims, methods, or concepts. In short, it must itself serve as the ground for a continued conditioned series of cycles of inquiry.

There thus are purely epistemic Events, as opposed to the merely ontological kind in nature, or those that are both ontological and epistemic as often occurs with Events of social reality. These epistemic Events, here epitomized by scientific revolutions, are not such that they break unintelligibly with the foregoing, but rather establish a continuity with previous inquiry

through a demonstration of its restricted scope. Finally, these Events need not appeal to some form of contradiction or impossibility with prior concepts. While they may appeal to concepts wholly unknown before, they might also appeal to changes in methods or changes in aims—or even all three at once as Laudan suggests. Yet, even in breaks of this last kind, a detailed history shows that such breaks occur in steps rather than holistically, so that the reasonability of the transition may be maintained.⁶⁰

7. Meaningful Signification in Social Reality

At the end of the last chapter I provided grounds to conclude that progress was not something inevitable, and that unique opportunities vanish with the cessation of ecosystems. In the present chapter I have provided the first grounds for understanding the human world as a series of meaningful ecosystems. This required me to broach an additional way in which this kind of reality is known, namely through common sense, and the elements of this reality itself, namely collective intentionality, assignment functions, and constitutive rules. I demonstrated how this kind of intentional meaning forms an ecosystem, and that it is precisely the assignment of status functions that makes for institutional facts, and thus establishes power in social reality. Through a brief examination of Foucault's later work I showed how three broad dimensions of power, namely sovereign power, biopower, and disciplinary power, exist and that they cannot in principle be unified. Because I noted that there are in fact half measures that operate in our world which try to unify these dimensions, I gave an account of bureaucratic rule. This required me first to produce a viable sense of technology for the present account, and second to give a

description of how bureaucratic models function technologically to quasi-unify the domains of power Foucault outlines. Some of the consequences of these proposals are the following.

First, because the present account of meaning takes the illocutionary act as the basic unit of human linguistic meaning, structuralist and post-structuralist approaches to language have only a limited domain for operation. Whatever light a deconstruction of a text may produce, it must always be supplemented by further investigation that is *not* deconstructive. Second, it cannot be said that social reality is simply “mental.” While it is a reality that supervenes on individual we-intentions as a complex underlying manifold, it is an independent reality. This is not to claim that it is some Hegelian *Geist* or ethereal spirit, but rather that when one *understands social reality*, one *understands* an aspect of being that is neither (simply) physical nor (simply) mental. Third, because human worlds all contain an inexistent, and power is merely a dimension of those human worlds, it has been established that political Events are possible. This shows that the present account is at least as capable as Badiou’s to account for this specific phenomenon. Fourth, the foregoing suggests a relation between power as operative in human worlds and economics as a similarly meaningful dimension of social reality. While Badiou thus considers economics inconsequential to political revolution, then, the present account suggest that this is not the case. Indeed, following much contemporary wisdom, it is precisely the exercise of economic study that enables one to identify so many of the world’s present injustices. Fifth, I have provided an account of technology that both justifies some of Heidegger’s concerns about the increasing technologization about the world, and at the same time limits those concerns. Among these limitations, principally, is the claim that much of human practice and many epistemic practices are simply not technological in the relevant sense. “Cybernetics,” an outdated notion, just cannot pose the threat to human existence that Heidegger thought. Indeed,

because institutions are necessary for political change, and because technology *can* aid in securing recurrent changes it is not at all amiss to look to technology for the solution to certain problems. Sixth, I have established an account of scientific revolutions that both fit my generic description of Events *and* is consonant with contemporary investigations in the philosophy of science. In addition to avoiding the general problem of the nonexistent outlined in chapter two, I have also avoided the specific problem with respect to science. Seventh, while I have not addressed the matter in detail, I have provided the grounds by which I think artistic events are possible. Ricoeur's sense of the symbolic capacity of human meaning is what grounds the possibility of such events, for a symbol is that which is irreducibly polysemic and productive through that polysemy. Symbols are not a matter "on the way" to full linguistic communication, something that would be superseded in full speech, but rather a certain kind of completion of that communication. Furthermore, they only gain full significance in relation to existential meaning, which is why feelings are a constitutive affective response to symbols. One could say, then, that the task for the artist, whether a poet or an architect, is to produce new symbols that rupture ordinary signifying discourse, but at the same time touch on the character of human existence.

In the eight place, through the combined use of common sense and explanatory knowledge, as well as through my four-fold division of meaning I have provided some novel grounds for distinguishing among scientific inquiry, that kind of inquiry that is characteristic of the social sciences, and that kind of inquiry that is characteristic of the pure humanities, such as English literature. Hacking has argued that while atoms cannot act under a description, humans can. The result is that humans can, for example, think of themselves as raced and hence *become* raced. The lack of precision in the social sciences with respect to the natural sciences, he suggests, is thus the result of this self-referential feature of human action.⁶¹ While I do not

disagree with Hacking, the foregoing suggests that the more basic distinction is between whether or not the reality addressed is (a) meaningful (=social) or not, and (b) whether one addresses that reality in an explanatory fashion, by common sense, or some combination.

I think a few examples might spell this rubric out a bit more. A discipline such as physics only addresses reality that is not existentially meaningful and only in an explanatory fashion. The social sciences, by contrast, are able to use scientific methods to study social reality, as well as what are often called “qualitative” methods such as interviews, and simple interpretive analysis (which in many cases is what regression analysis turns out to be). The reason they do this is because they are interested in understanding meaningful reality with both explanatory and common sense reasoning. Existential meaning is only available with respect *to us*, which means it is only available as a form of common sense. One may say that “pure” humanities disciplines, such as various literature studies departments (e.g. English or German studies) are concerned in their pure capacity with just existential meaning. Finally, disciplines, such as philosophy itself, may be understood as reflecting on all these disciplines but with the purpose of making clear just what the significance is to us. Philosophers, then, not only may but must use all available means of investigation (including experimentation), but they must do so with an aim to making sense of it all in an existential way. Without this final aim, philosophers forego wisdom for mere knowledge.

Finally, I have provided the grounds for a second-order account of political resistance and political intervention. I shall now spell out the significance of this account with respect to contemporary proposals for political intervention. Recently, Simon Critchley has noted that nihilism may take two forms: passive and active. The first of these may be illustrated by the underground man in Fyodor Dostoyevsky’s *Notes from the Underground*. In one of his many

rants, the underground man attacks the crystal palace. An historical point might be in order here. In London 1851, the first Universal Exposition was inaugurated and held in Hyde Park amidst enormous clamor and anticipation. Of all the projects submitted, the one the organizers chose was one submitted by Joseph Paxton, which called for an enormous building to be made up of 900,000 square feet of glass.⁶² It was on account of such a large amount of glass that the structure came to be known as the Crystal Palace, and during the time that it existed, it stood as a landmark for the advances made by the industrial revolution. The underground man, however, makes a rather different point: “But while I am still alive and have desires—why, may my arm wither if I contribute even a single little brick to such a solid building! Never mind that I have just rejected the crystal edifice for the sole reason that one will not be able to stick out a tongue at it.”⁶³ In the underground man’s eyes, the palace is a problem. It is a symbol of the iron clad production of reason. A bit like the narrator at the beginning of Leo Tolstoy’s *Anna Karenina*, the underground man concludes that there are only a few rigid ways to succeed but infinitely many ways to fail—infinately many ways to preserve one’s desires, one’s identity. Better to stay in the underground and preserve just these desires, then, than to live along the surface and be unable to stick one’s tongue out at the symbol of progress. This is a statement of passive nihilism—a turn within to quietude and to forget the larger world.

Active nihilism is what one finds in the second half of the *Notes from the Underground*’s more recent cousin, namely Chuck Palahniuk’s *Fight Club*. While this work also begins with activities of passive nihilism, such as using support groups for sleep, and beating other people up in fights, it is the development of project mayhem that serves as the active counterpart to Dostoyevsky’s novel. Like passive nihilism it finds everything meaningless and has no faith at all in the Enlightenment narratives of unmitigated progress. Unlike his passive counterpart,

however, the active nihilist “tries to destroy this world and bring another into being.”⁶⁴ A member of this later group quips that one of the narrator’s goals should be to “[b]urn the Louvre ... and wipe your ass with the *Mona Lisa*. This way at least, God would know our names.”⁶⁵ Project mayhem operates much like a post-modern, rhizomatic corporation working outside the law of any state. They conspire, in the end, to take down a financial building with explosives. Though written in 1996, it was of course precisely this activity that Al-Qaeda undertook on 9/11/2001.

The lesson to be learned for political resistance is that both forms of nihilism are to be avoided. The hope for a “withering away of the state” is just one of those forms. I have argued that the dimensions of social reality that form the conditions of power *just are institutions*. In short, if there are no institutions, no assignment of status functions, then there is no power. Without power there just is no recurrent, human collaborative action. And without recurrent, human collaborative action there can be no trade across seas, no regular sale or even bartering of goods, no way to coordinate human affairs to create modern homes, etc. Any political intervention, then, must look to establish *a positive moment of institutionalization*. This is part of the definition of an Event, namely the establishing of a new conditioned series of cycles, but is it particularly true of politics. These considerations suggest that anarchism is premised on a category error, and so too are those forms of socialism that would envisage a day when the state is no longer necessary.

At this point I have already begun to cross into the dimension of existential human meaning. And it is this point precisely that I hope to elaborate in the chapter that follows.

8

Existence and History

If all who have begged help
 from me in this world,
 all the holy innocents,
 broken wives and cripples,
 the imprisoned, the suicidal—
 if they had sent me one Kopeck
 I should have become 'richer
 than all Egypt' ...
 But they did not sent me Kopecks.
 Instead they shared with me their strength,
 and so nothing in the world
 is stronger than I,
 and I can bear anything, even this.
 – Anna Akhmatova
 Untitled Poem

On October 12, 1492 at approximately 2 a.m. a sailor by the name of Ridrigo de Triana on board the *Pinta* spotted land after five weeks of sailing. Christopher Columbus' ships were in what is now recognized as the Bahamas, though the exact island that they located is under dispute. Columbus named the island *San Salvador*, despite the fact that he found peaceful inhabitants there who had their own name for the island. Reporting on them, in his October 12th entry in his ship's log, Columbus writes the following:

Many of the men I have seen have scars on their bodies, and when I made signs to them to find out how this happened, they indicated that people from other nearby islands come to San Salvador to capture them; they defend themselves as best they can. I believe that people from the mainland come here to take them as slaves. They ought to make good and skilled servants, for they repeat very quickly whatever we say to them. I think they can very easily be made Christians,

for they seem to have no religion. If it pleases our Lord, I will take six of them to Your Highness when I depart, in order that they may learn our language.¹

And so it was that Columbus, on the very first day of his sighting of land across the Atlantic, began one of the largest projects of imperial colonization. In subjugating the “new world,” one that was in fact quite old to the inhabitants, the following conquistadors caused the deaths of likely more than ninety percent of the native 100,000,000 inhabitants, making it the single greatest catastrophe of human history, far exceeding the Black Death in Europe.²

The encounter between European colonizers and indigenous Americans is something that would seem to qualify as an Event. It is, however, an Event of a specific kind. First, it is not only a natural Event, but above all an Event of human social reality. Second, the meaningful dimension of this social reality crosses from the merely signifying account addressed last chapter to the profoundly existential (touched on in the conclusion). This is true not only for the native inhabitants who were about to have their gods demonized, culture demolished, and language replaced. It is true for anyone who lives in the human world today, since what I want to argue is that it is with this Event that one finds the origin of the phenomenon often called “modernity.” Third, while this Event did give rise to new conditioned series of cycles, especially the economic cycles of world trade, it at the same time was an Event of ecosystem collapse, and especially the collapse of existential meaning. Among the other cases that at one level exemplify similar traits, one finds the European projects of colonizing Africa and India (each with their own catastrophic fall-out), the Shoah, and the Gulags.

The aim of the present chapter, then, is four-fold. First, I provide an account of the existentially meaningful dimension of human worlds, which is complementary to the signifying

dimension explored last chapter. Second, I shall extend the significance of this distinction by focusing on the conditions for historical meaningful experience following Ricoeur. In short, I think that the key to this question turns on identifying the historical character of the human *conditions* (in the plural). Third, and partly because these human conditions are historical, I shall try to redress the sense of modernity in a non-Eurocentric way. In this task I shall draw on the work of the Latin American philosopher Enrique Dussel in order to extend Ricoeur's temporal account of human conditions with complementary spatial considerations. Finally, I shall turn to address the particular character of catastrophic Events. These are Events that have no positive recurrent cycles, but are instead marked by the absence of many that formerly existed or steady downward spiral of such possibilities. Here I shall engage with Lonergan, Dussel and Ricoeur in turns.

1. Meaning and Existence

Owen J. Flanagan poses the critical question that effects the transition from signification to existential meaning in his work *The Really Hard Problem: Meaning in a Material World*.³ He asks: given the scientific description of the world, how is it that existential meaning enters it in any way? Given the methodological divergence of the present work, I shall not follow his answer, but it is a question that must be faced squarely by any philosopher who wishes to step foot into the domain of existential meaning, and it is a question the present account has not yet answered. I have shown how the human world is real, and that this reality is founded on signifying intentions (which are ultimately insights) that have three basic components: assignment functions, constitutive rules, and a collective "we" intention. Additionally, I have argued that there exists a realm of symbolic meaning that furnishes the basis for art and artistic

Events. While I did indicate in the last chapter how one might make the transition to existential meaning, I did only that. My present task, then, is to make good on that indication.

(a) Care and Existential Meaning

Some distinctions, I think, are apt in beginning this argument. First, recall that there are two forms of existential meaning: personal and historical. The first kind concerns such matters as falling in love or forming friendships. The second concerns the possibilities for human existence at some time and place in human history. In this case the most well-known examples include the rise in secularization and the pervasiveness of nihilism. Next, I indicated that existential meaning may emerge either through ethical judgments of value, or in a more prosaic way through care. The first path is a matter that vastly exceeds the scope of the present work, so what I hope to present are clear grounds for understanding evaluation that is not normative, but is nevertheless existentially meaningful. In order to make my case for this second possibility, I am going to pursue a phenomenological approach to existential meaning by reconstructing and extending Heideggerian “*Sorge*,” which is translated as both care and concern. I am not here focusing upon the way *Sorge* functions to bring the whole of Dasein before our hermeneutical pre-comprehension, but, much like my treatment of his account of technology, upon retrieving Heidegger’s account for the quality of the insights he provides independently of his fundamental-ontological aim. Because some points of this reconstruction would otherwise be unclear, it will help to anchor what follows in a concrete case.

The case that I have in mind is a passage from Tomás Rivera’s novella “...y no se lo tragó la tierra” / “... And the Earth Did Not Devour Him.”⁴ The story itself is composed of

fourteen separate vignettes, each of which has two parts save for the last vignette, which has only one. Most of the story is narrated by an anonymous young boy, who loosely ties together the many events that affect the lives of migrant workers in the United States and Mexico. Because of the vignette style, the anonymous protagonist(s), and the Faulkner-esque stream of consciousness narration is that the story can be understood to chronicle a kind of collective narrative for the migrant workers. The following excerpt is from a vignette that the young boy does not narrate, but is instead a prayer a mother offers to Jesus and the Virgin Mary for the safe-keeping of her son who has just been taken to Korea for some unexplained reason.

Please, Virgin Mary, you, too, shelter him. Shield his body, cover his head, cover the eyes of the Communists and the Koreans and the Chinese so that they cannot see him, so they won't kill him. I still keep his toys from when he was a child, his little cars, little trucks, even a kite that I found the other day in the closet. Also his cards and the funnies that he has learned to read. I have put everything away until his return. ...

Take care of him, cover his heart with your hand, that no bullet may enter it. He's very noble. He was very afraid to go, he told me so. The day they took him, when he said his farewell he embraced me and he cried for a while. I could feel his heart beating and I remembered when he was little and I would nurse him and the happiness that I felt and he felt.

Take care of him for me, please, I beseech you. I promise you my life for his. Bring him back from Korea safe and sound. Cover his heart with your hands. Jesus Christ, Holy God, *Virgen de Guadalupe*, bring him back alive, bring

me back his heart. Why have they taken him? He has done no harm. He knows nothing. He is very humble. He doesn't want to take away anybody's life. Bring him back alive, I don't want him to die.

Here is my heart for his. Here is my heart. Here, in my chest, palpitating. Tear it out if blood is what you want, but tear it out of *me*. I sacrifice my heart for his. Here it is. Here is my heart! Through it runs his own very blood ...

Bring him back alive and I will give you my very own heart.⁵

What is clearly demonstrated in this passage is a mother's love for her son. It is a relation that sustains her relation to all the little toys that she still safeguards at home, and it is a relation that knows no boundaries to its generosity. Rather notoriously, Heidegger never addressed love in *Being and Time*. Perhaps a basic criterion for the success of my reconstruction and extension of existential meaning, apart from not regressing into Heidegger's various levels of ontological priority, would be to make room for such relations.

Turning now to the reconstruction of existential meaning, my first point concerns the basic sense of existential meaning. Towards the end of division one of *Being and Time* Heidegger writes: "The formally existential totality of Dasein's ontological structural whole must therefore be grasped in the following structure: the Being of Dasein means ahead-of-itself-Being-already-in-(the-world) as Being-alongside (entities encountered within-the-world). This Being fills in the signification of the term 'care' [*Sorge*]" (192/237). In short, how human beings *exist* in the world of meaningfulness is through care. Another way to say this might be: beings have Being (i.e. have existential meaning), because one cares about them. To return to the anonymous mother praying for her son, one notes that anyone could find the kite in the closet.

To a stranger, however, it would be only another being, an irrelevant trinket. It is only to the anonymous mother that it *is* (i.e. *ist* from *Sein*) one of the concrete beings that sustains their relationship.

A second point concerns Heidegger's statements on the phenomenological way in which care can be manifest in first-person consciousness. The only literary passage that appears in *Being and Time* is the short Latin parable on *cura* (BT 198/242). Heidegger quotes the parable in full not only to indicate that humans "pre-ontologically" understand beings in terms of care, but also because the Latin *cura* above all means *anxiety*. One of the most typical ways that one becomes aware of one's care, or at least those matters one cares about, is through the mood, the feeling of anxiety. The kite the mother finds in the closed is a source of the mother's nostalgia *and* anxiety; it reveals the depth of her care.

Extending Heidegger's thought, and this is my third point, one could say that care is manifest in a broad range of feelings and moods, though perhaps two of the most salient (apart from care as anxiety) are desire and esteem. By desire I intend not only erotic desire, the pattern of which was discussed in chapter four, but the broad sense of desire as wanting. The mother wants her son to return safely and without harm, and it is for this reason that she is praying at all. Similarly, her care for her son manifests itself through esteem, through what she values. The mother's prayer is in many ways typical of the practice of Catholicism that one finds even today in Mexico, since the patron Saints are in some ways treated as local pagan deities, and the mother enters into a bargaining exchange, whereby a sacrifice to the gods is supposed to bring about desired effects. Yet instead of a goat or a bull, the mother pledges her own life. What matters to her is her son's safekeeping. His life is existentially meaningful, existentially valuable, so much so that she values it as worth more than her own existence. The character of

evaluation, one should note, is not strictly ethical. It takes the form “x is valuable” without addressing whether x *should* be valued. Nevertheless, this form of evaluation through esteem is one of the most characteristic ways that one cares about people or things.

A fourth point concerns the articulation of a matter that has remained implicit in the forgoing. Heidegger notes that care is differently articulated towards its objectives in two ways: “Because Being-in-the-world is essentially care, Being-alongside the ready-to-hand could be taken in our previous analyses as *concern*, and Being with the Dasein-with of Others as we encounter it within-the world could be taken as *solicitude*” (BT 193/237). This is to say, there is a distinction between the way that one cares about things and the way that one cares about Others, the former of which Heidegger calls “concern” the latter “solicitude.” Moving beyond Heidegger, one should note that the concern one has for things is always mediated by one’s solicitude. This point is clearly illustrated in the way the mother has concern for her son’s toys, but it is also illustrated in the concern one might have for a luxury vehicle. The social esteem such a car enjoys is mediated by the esteem of others, though this is not to deny that such perception is itself the result of the efforts of marketers. My point, in short, is that things gain existential meaning *through* our relation to Others.

A fifth point concerns the relation of care to personhood or *ipseity* in Ricoeur’s terminology. At the end of the existential analytic Heidegger makes this connection in the following way: “In terms of care the *constancy of the Self*, as the supposed persistence of the *subjectum*, gets clarified. ... Existentially, ‘*Self-constancy*’ signifies nothing other than anticipatory resoluteness” (BT 322/369). The matter here is complicated, but for the present purposes the lesson I take away from Heidegger’s observation is that the constancy of one’s personhood is determined through one’s ability to remain faithful to commitments. Following

Ricoeur, I argue that the semantic form these commitments take is that of promise making. This means that the existential meaning of selfhood (which is distinct both from the diachronic identity of self, or *idem*, and the kind of narrative identity that Ricoeur suggests would unite both *idem* and *ipse*) is specified concretely in the commitments one makes. What is noteworthy about the mother in Rivera's description is that while the reader never learns her name, or her son's name, one nevertheless gets to know a good deal about who she is precisely because this prayer reveals one of her deepest commitments: loving her child. If one understands love in this way, namely as one of the most basic forms of commitment that defines the *ipseic* constancy of one's care, then I think the foregoing is sufficient to show how this account of existential meaning is open to a possibility that is absent in Heidegger's thought.⁶

(b) Social Reality and Existential Meaning

A final point that has been latent in the foregoing is the way in which existential meaning is historically mediated. Quite famously in *Being and Time* Heidegger argues for the relation of care to historicity in the following way:

Dasein factually has its 'history,' and it can have something of the sort because the Being of this entity is constituted historically. ... The Being of Dasein has been defined as care. Care is grounded in temporality. Within the range of temporality, therefore, the kind of historizing which gives existence its definitely historical character, must be sought. Thus the Interpretation of Dasein's

historicality will prove to be, at bottom, just a more concrete working out of temporality (BT 382/434).

In a certain way, what Heidegger argues here is undeniable: the kinds of things about which an individual may care are historically conditioned, and even the way one interacts with Others has its historical conditions. For example, it is not the case that a woman living in ancient Greece *could* desire to become an astronaut. Furthermore this existential fact is quasi-objective, meaning that despite the fact that beings and Others gain existential meaning through care, they cannot *simply* either be willed away or be willed into existence. To borrow an example from Charles Taylor's *Ethics of Authenticity*, I may wish very hard that wiggling my toes in mud might be considered something meaningful, but such willing is insufficient to make it so. In order to make it recognized as a meaningful activity I must connect the action to some domain *already* recognized as meaningful. I may claim, for example, that by wiggling my toes in mud I have access to the spirit realm and can talk to my deceased relatives. This is a matter that others are likely to consider strange (given contemporary culture), but it becomes *intelligible* or meaningful in this way.⁷

What is difficult in Heidegger's approach to historical existential meaning is the illicit "short circuit" that seems to be present between the account of existential meaning defined in terms of an individual's care, and that account which finds ultimate reference in an historical horizon. The relation between the two is never worked out adequately in *Being and Time* (owing in part to the unfinished character of the work), and in his later work Heidegger focuses almost exclusively on the latter without considering its relation to the former.⁸ As a result an impasse has formed between particular accounts of existential meaning and historical-cultural accounts.

This impasse may be considered one of the great Heideggerian enigmas bequeathed to later generations of philosophers. So difficult has it proven to solve that recently Slavoj Žižek has suggested that it is unsolvable, and that one ought to accept it as one of the basic impasses of ontology.⁹ I think this dire prognostication is premature, and that with the account of worlds and meaning developed thus far a solution may be presented here.

My proposal, which may be considered an existential articulation of the basic features of social reality discussed last chapter, is the following. To begin, recall that assignment functions already introduce existential meaning into social reality (chapter 7 §2.b). To assent to the intelligibility that “x counts as y in c” is to assign x a form of existential meaning. At a personal level this may be done tacitly and merely by caring about something or someone. Second, and this is the most important point, social reality is constituted by *collective* intentions rather than singular ones. The reason I cannot simply will everyone to esteem that wiggling my toes in mud is an activity of utmost importance is because the import at stake here is a collective estimation rather than a personal one. And as I argued above, the function this collective estimation takes is that of an ecosystem. Collective estimation, then, supervenes on personal estimation.

Crucially, the transition from personal care, desire and estimation to collective care, desire and estimation occurs through *a process of recognition*. One of the most interesting features of *ipseity* is that I gain existential meaning and identity through assigning *myself* a function. In telling my partner that I shall love her forever, I both constitute my own personhood as a lover and give my life existential meaning. She may even reciprocate this promise, thus both recognizing my love for her and constituting her own *ipseity*. Of course this mutual recognition must also be kept, which is why the key point about personhood turns on fidelity. But even if we both remain faithful to each other, there is no guarantee that others will recognize

our love or our personhood as constituted through such love. It is for this reason that the practice of wedding people exists and that institutions must be maintained to legitimate the wedding itself. In this case the promises of love made between lovers must be formalized (not only materially through the formalization of vows, but also through the introduction of witnesses), in order that the relation between lovers is assigned a collective intention. Recognition, in short, is the process by which individual intentions are assigned a collective function and thus become a thread in the fabric of social reality.

These four points complete the transition from personal existential care to the existential meaning of social reality. To be clear they are the following (presented this time in logical order). First, collective intentions are to be recognized as distinct from singular intentions, so that the character of existential meaning is distinct (though related) in personal and social realms. Second, assignment functions already serve to introduce an (existentially) evaluative dimension. By assigning a person the function of a police officer, it becomes possible immediately to discern whether she fills that role well or not. In order to broaden the scope of existential meaning, one need only witness how the cares, values and desires of individuals are assigned a public function through the process of recognition. This third point, I suggest, is what takes the place of constitutive rule formation in merely signifying relations. Finally, just as the signification of social reality has the character of an ecosystem, so too does the existential meaning of social reality. This point follows because fundamental structures are at work in both cases: collective intentions, assignment functions, and constitutive rules or the process of recognition.

Though the argument is now formally complete, I want to introduce an important corollary point: it is the breakdown or absence of such procedures that constitutes the struggle for recognition. An example here is the struggle for the recognition of gay and lesbian marriage

in the United States. Beyond the pragmatic points that are often raised in this debate is the existential point concerning recognition. The meaning of a petition for the state recognition of gay and lesbian marriage is at base a petition for the social recognition of the claim: “We gays and lesbians are able to love too!” And since it is the case that the capacity for romantic love is often recognized as a hallmark of human dignity, what gay rights activists are seeking (in part) is the social recognition of their human dignity.

Having established the existence of both personal and social existential meaning (another term for which is historical consciousness), the tasks that remain are the following. First, while I have just furnished the grounds for the existence of social reality, I have not provided any way to account for how it is understood. The common term used in this regard is “history,” so what I must provide is a phenomenological account of historical investigation. Second, I have not specified the concrete form that historical social existence has taken. While I have mentioned some points concerning nihilism or the malaise of modernity so far, I must now show just what is meant as well as overturn the Eurocentrism that has sustained much of these analyses. Finally, while it follows from ecosystemic character of social reality that suffers catastrophic declines, I have not address either what these mean existentially or how one comes to understand them. I take up each of these matters in turn.

2. Historical Consciousness

In broaching the realm of historical consciousness, which makes up the meaningful dimension of the human condition, one enters the domain of what Ricoeur has called “first hermeneutics” (MHF 385/293). Existential meaning is inextricably tied to the historical conditions of human existence; to be human is to exist historically. Thus to give an account of historical

consciousness is to give an account of existential meaning in one of the most fundamental ways.¹⁰ My plan is to follow Ricoeur on the conditions for historical consciousness, which he divides into the critical and ontological dimensions. They are called *conditions* in the Kantian sense, because they account for the possibility of this discourse, but not because they limit it to some rigid domain of application. While lower complex manifolds are conditions for their emergent cycles, those cycles are certainly not limited by them in any sort of rigid way. The one caveat that proves necessary here is an exegetical matter. Ricoeur's thought on historical consciousness developed from the last volume of *Time and Narrative* to his statement in *Memory, History, Forgetting*. I shall thus try to extract a systematic account of the matter, while averting to historical developments as pertinent.

(a) *Critical Human History*

In his account of critical human history Ricoeur establishes what he calls the “metahistorical” categories or the transcendentals of history (MHF, 389/296). They have this status because there is a marked gap between the temporal modes of historiographical operation and these categories. While the former concern the epistemic status of historical claims, these concern the conditions that make historical meaning possible (especially existentially possible). He adapts these metacategories from Reinhart Koselleck's work, and he identifies three.

The first of these is what he calls the “space of experience.”¹¹ It is, in short, the persistence of the past in the present. The term “experience” in this case is a translation of “*Erfahrung*.” Unlike the German “*erleben*,” which means the kind of experience one lives, the verb “*erfahren*” is related to “*fahren*,” which means to drive or travel. Since “*er-*” is the prefix

the means that which enables, “*Erfahrung*” is the experience gained from being enabled to travel or traverse some distance. In short, it is the kind of experience that suggests a matter of something foreign being overcome. The term “space” evokes “the idea of different possible traversals following a multitude of itineraries” so that one is not to think of the past as a simple line or mere sequence of events.¹²

The second is what Ricoeur calls the “horizon of expectation,” which in rather Augustinian terms means “the future-become-present (*vergegenwärtig Zukunft*), turned toward the not-yet.”¹³ Of course this horizon is something that is not set either, and so it determines one’s expectations relative to the future.

While these two first conditions thus exhibit a certain similarity, it is impossible to take one’s account of the former and derive the latter. Because the possible construals of the past are not simply linear, one’s expectation of future possibilities cannot be dogmatically set. It is on this point, I think, that Ricoeur departs rather starkly from the Heideggerian motif that only the existential possibilities of the past may be taken up again for the future. Yet, it must also be said that whatever surprises emerge from future expectations, they cannot be otherwise than to be situated within space of experience.¹⁴ These two categories, then, may be taken as transcendental conditions for understanding existential, historical meaning, because they enable one to think the past and future in the present as existentially meaningful.

Yet, beyond these two conditions, there is a third category, which Ricoeur calls the concept of history as a collective singular. He notes that it is the “master category” of the human historical condition, since it is “the condition under which the time of history can be thought” as in some sense unified (MHF, 391/298). One can put the rationale for this category in question form: why is it, despite the enormous differences between historians such as Spengler or

Toynbee, that the term “history” is *capable* of designating the whole sequence of past events as a singular collective? It appears to be a phenomenological fact that people do think of the history of the world as unified, and the condition for this possibility of this understanding is collective singularity.

Yet, Ricoeur is not content merely to state these conditions. He notes in particular that the notion of collective singularity was produced reflexively through historical thought on the very character of history (MHF, 393/299). Furthermore, there are grounds for doubting the adequacy of this notion. To begin, Ricoeur argues that *the primary fact* of history is human plurality (MHF, 395/301). The notion of a collective singularity, then, is something that must (at least) be achieved; it is a task. Yet, second, this point may lead one to question exactly what kind of idea collective singularity is. Is it a Kantian regulative idea, something towards which historians aim, or is it a Hegelian determinant idea, in which case the reality of human plurality is already universal regardless of whether historians are able to articulate it well? Above all, Ricoeur argues that the historization of the conditions for experiencing history tend to undermine the very possibility of this metacategory. If “collective singularity” emerged at a certain place and time, it may either be simply wrong, or worse, part of ideological trappings of those who produced it.

Although Ricoeur never comes out and pronounces his final judgment on the matter, he does provide some directives for thought. In *Time and Narrative*, in particular, he announces two imperatives that follow the first two conditions. First, one ought to resist the seduction of utopian expectations, which are likely to accompany the horizon of expectation.¹⁵ Second, one must resist the narrowing of the space of experience, which is likely to occur when one forgets the multiplicity of itineraries that make it up.¹⁶ In response to the third category, Ricoeur in fact

takes up an investigation of how philosophers came to produce an account of modernity and the particular notion of collective singularity, which is itself a modern notion. One could perhaps formulate this action as a third imperative: recognize that all accounts of the unity of history are provisional, corrigible, and open to unexpected novelty.

(b) Ontological Human History

If these conditions form the transcendental categories by which history is able to be understood as existential meaningful history, it is also the case that the referent of these claims “points to” an ontological plane of being. This is to say, there is a part of being that is intelligible only with respect to human possibilities, and this is what one inquires into through historical investigation. The purpose of Ricoeur’s turn to the ontology of human history, then, is to provide a more concrete account of existential, social reality. In particular, he aims to articulate the temporal dimension of existential worlds, which is critically different from either the sense of time one finds in Einstein’s general relativity physics or the kinds addressed in natural ecosystems.

Ricoeur’s plan of inquiry, after a long detour through the human sciences, is to retrieve Heidegger’s three-fold account of time as temporality, historicity (*Geschichtlichkeit*), and being-in-time (*Innerzeitigkeit*). Much like my own retrieval of *Sorge* above, this is possible for Ricoeur only by abandoning the hierarchy among the levels of existence Heidegger articulates. Instead, these are simply to be understood as separate dimensions of ontological (historical) existence, and while there is a relation among these dimensions it is not a hierarchical one. Yet, it is only possible to take this articulation to be one that is complementary to the historical

discourses if Ricoeur can actually manage to establish a bridge with historiographical work at each level.

Ricoeur begins with a retrieval of temporality, which in *Being and Time* is defined in terms of authentic being-towards-death. For it is the anticipatory resoluteness characteristic of authentic existence that allows one to recover the temporal dimensions of one's Being explicitly. Yet, Ricoeur is not content with Heidegger's statements on this matter, and so he modifies it in three ways. First, he tempers the exclusive emphasis on death by retrieving Levinas and Spinoza's (and one is tempted to say Nietzsche's) joy for life itself. "Does not the *Angst* that places its seal upon the always imminent threat of dying mask the joy of the spark of life? ... Should not this jubilation be opposed to what does indeed seem to be an obsession of metaphysics with the problem of death" (MHF 466/357)? The point is that just as death is able to open one to the possibilities of existence, so too are the moments of joy that punctuate life. Perhaps the birth of a child or the reciprocation of love by one's beloved have just as much force in opening these possibilities as dying does. Similarly, the process of birth or natality, as Arendt notes in *The Human Condition*, may be understood as the originally disclosive event for temporal existence. Second, Ricoeur moves to expand Heidegger's consideration of death. The problem with Heidegger's dismissal of the death of another is that even in relation to myself I may be subject to "ruses just as cunning," which deceive me into supposing I have had an authentic meditation (MHF 468/359). Instead, one should focus on the resources for (existential) truth. It is almost certainly the case that I come to know about the existential meaning of death through that of my close relatives first, and that this kind of death "constitutes a genuine amputation of oneself" (Ibid). Even the death of remote others teaches me about "the mark of nothingness" that expresses the finality of existence (MHF 469/360). Finally, Ricoeur uses this

three-fold relation of self-close relative-Other, to bridge the gap with the historian. For it is the historian who places death in history, and it is the historiographical operation that may be understood as the ontological work of mourning, of burial, which is not something merely punctual, but which must be sustained (MHF 476/366). The result of historiographical work is *to produce* the absence of the past which would otherwise remain mere oblivion. It is in this way, then, that the existential possibilities of death, joy, birth and perhaps other disclosive events enter temporality.

In turning to what Heidegger would consider a more derivative level of time, namely *Geschichtlichkeit*, Ricoeur's aim is to retrieve retrieval (*Wiederholung*) itself as the ground for connecting Heidegger's ontological discourse with historical work. Ricoeur begins by noting how Heidegger's argument in §77 of *Being and Time* explicitly refers to York's criticisms of Dilthey, and that Heidegger takes up York's side. The result is that in response to Dilthey's understanding of history as the connectedness of life, Heidegger finds that it is impossible to conduct upon this basis "a genuine ontological analysis of the way Dasein *stretches along* between birth and death" (BT 374/426). This "stretching along" at its most profound level, of course, is nothing other than *Sorge*—as "care, Dasein is the 'between'" (BT 374/427). Since temporality is only the *basis* for this unity, it is complemented by a more specific form of this stretching along, which "we call its 'historizing'" that when laid bare just is an ontological understand of historicity (BT 375/427). At an ontological level, then, historicity makes sense of the motivity of Dasein's (as well as world-history's) stretching along, its permanence, and its occurrence (MHF 488/375). In short, it makes sense of the "stretching along" in all its dimensions. Additionally, and it is here that one finds a bridge to historiographical discourse, Heidegger argues that historicity cannot be understood as a mere tool, as an object ready-at-hand,

of the past. Existential repetition “of that which is possible does not bring again something that is ‘past,’ nor does it bind the ‘Present’ back to that which has already been ‘outstripped.’ ... Rather, the repetition makes a *reciprocative rejoinder* to the possibility of that existence which has-been-there” (BT 386/438). In short, while the events of history may have occurred, have permanence, and exhibit a certain movement in their stretching along, their existential *sense* is neither merely passed down nor totally fixed. Yet, it is the business of historians just to unfold this multiply changing sense. Ricoeur’s point, then, is that historiography is thus able to step beyond the mourning of the past and begin its entombment through its concrete repetition in the historical operation (MHF 495/380).

Finally, Ricoeur addresses “within-timeness,” or “being-within-time” (*Innerzeitigkeit*), which served the pivotal role in *Time and Narrative* in providing the dimension of temporal reckoning proper to narrative existence. Being-within-time just is the temporal manner of being-in-the-world, and so it is what accounts for how one reckons with time in a lived way. Without averting to the quantitative analysis of time that physical science produces, one nevertheless understands the world as related to a before and after relative to the present. While temporality, then, concerns primarily the future and historicity the past, *Innerzeitigkeit* concerns the present as lived. Beyond the reckoning that this sense of time enables, one also understands this time through rhythmic measurements, such as day and night, work and festivity. Finally it enables one to understand the time of the right moment or opportunity (MHF 499/383). Because this sense of time is understood in terms of concern, there is a natural bridge to the historian’s account of the time of common action (MHF 501/384). Yet, it is at this point that one encounters the “paradox of the actor,” namely that the development of history aims to turn all forms of historical memory into its privileged objects, and yet these very traces and actions resist such

dissolution (MHF 501-2/385). For Ricoeur, this confrontation between the *history of memory* and the *historicization of memory* constitutes “an open dialectic that preserves them from that passage to the limit,” which would reduce one to the other (MHF 511/392). It is this tension that is the *source* of historical research, and thus the way one has access to the time of concern from the historiographical operation. In short, the tension is productive rather than an obstacle, and may be said to constitute “prudent consciousness” (MHF 512/393).

3. Historical Consciousness Viewed from its Underside

Having provided an initial outline of both the ways one comes to understand the existential significance of historical consciousness and the temporal ontology of existential social reality, I now provide a “spatial” extension of the forgoing. This extension is required not only because there is a marked tendency in the history of philosophy to devalue space in favor of time, which has the result that philosophers in practice are able to ignore whole continents in their presumably global accounts of historical consciousness. Hegel’s relegation of Africa to “pre-history” is notorious in this regard, and it is equally pertinent to acknowledge that he has no place in his history for Latin America. Yet, beyond this point, I have argued that human worlds are to be understood as conditioned series of ecosystems, and it was established that each ecosystem introduces a different sense of time *and* space through the distribution of possibilities for emergence. My point here is that, just as natural world-space makes it impossible for much life to flourish in Antarctica, so too human world-space distributes possibilities for existence and existential emergence. Because one simply *cannot* understand world history apart from space, then, I must provide a complementary account of historical consciousness in its spatial dimensions. Because the one philosopher who has attended to this facet of human existence

most is the Latin American philosopher Enrique Dussel, I follow his account of human history as viewed from the “underside,” that is to say, as viewed from the perspective of one who has had to endure an existence in persecution and exile, in the existential equivalent of Antarctica.¹⁷

If it is possible to reduce Dussel’s project, which at present makes up more than fifty books, to one thesis it is the following: philosophers have been unable to account adequately for historical consciousness because they have treated the phenomenon in purely temporal terms, which has enabled them to overlook the vastly different character of lived existence in places other than Europe.¹⁸ The result is not only that they have been mistaken about phenomena such as modernity (and equally post-modernity), which is largely described only in terms of secularization and the rise of instrumental reason, but also they have failed to recognize one of the most obvious problems of the contemporary world, namely the fact of overwhelming distributive injustice. To mention just one statistic, during the fiscal year of 2000 William Gates III on his own was worth the equivalent of the bottom 45% of the whole population of the world.¹⁹ In order to avoid the decadent Eurocentrism of philosophers who, like Hegel, Heidegger, and Habermas, fail to consider the relevance of spatial distribution for human meaning and social reality generally, it is necessary to provide an account of human history that addresses this fact.²⁰

These points raise an obvious question: just what does Dussel mean by “space?” The matter is complex, but at a first approximation one can say that it is part of what he calls the “world-system.”²¹ In terms of the present investigation the world-system is a conditioned series of ecosystems that unequally distributes goods, services, human meaning, and existential possibility. The spatiality of this system concerns the inequality of the distribution, which establishes a center, for example Europe and North America, and a periphery, which to continue

the example may be taken to include South America, Africa, India, and much of China among other global regions. Those who are so unfortunate as to be born into the periphery, which is the plight of the overwhelming majority of human kind (!), form the exteriority to the position of totality, which is lived by the lucky few who inhabit “first” world nations. To be Other, to live in the exterior of the world-system, then, is to have one’s possibilities for existence, one’s factual and narrative identity cut off from the beginning. How is a rural Uganda farmer to become a nuclear physicist or world class pianist if she cannot even find food to eat? These categories of center and periphery, then establish the two capital relations of Dussel’s space, and it is for these reasons that Dussel argues that it is necessary to include a spatial dimension within an account of historical meaning *on par with* time.

Given this broad outline of Dusselian space, three points of clarification are now necessary. First, it should be clear why Dussel writes: “I reject conclusively the expression *Marxist* liberation philosophy.”²² His concern is not principally economics, but the process of exteriorization that occurs with the world-system. What is at stake is not simply economic. While he is a liberation philosopher, “liberation” for Dussel is clearly aimed at overcoming the manifold forms of oppression that result from this distribution, including sexism, racism, and homophobia, none of which are reducible to economic analysis. Second, it might appear that this account of space is an entirely external or third person account of space. Much like Leibnizian or contemporary mathematical space, Dussel’s account addresses space as a coordinated series of relations, with the caveat that his account of space is not homogeneous. It is not the case, however, that his account is purely external, since it is of critical importance that the space of the world system is *lived, factual space*. This is to say that his space concerns its coordination

within social reality as meaningful. If it did not begin with the fact of oppression and victimization, there would be no sense to this account of space at all.²³

The third point concerns the historical reality of the world-system. This world-system, since it is real space, came into being at a precise time and in a specific locale. For Dussel its birth can be dated to 1492, since it is with the discovery of the “new world” that the modern world-system came to be.²⁴ What needs to be understood, Dussel argues, is that modernity and the world-system to which it gave birth, is “the effect of the simple fact of the discovery, conquest, colonization and integration (subsumption) of Amerindia ... [which gave it] the determining *comparative advantage* over the Ottoman-Muslim world, India, or China.”²⁵ The warrant for this claim may be briefly summarized as follows.

Before the world-system came to be, humans lived in pockets of communication and trade known as “inter-regional systems.” These pockets themselves, however, were only possible with the development of agrarian technologies. By about 11,000 BCE it is clear that all the major habitable continents were populated (claims to prior dates for the Americas, even if true, show little impact until about this time anyway).²⁶ While it is true that Aboriginal Australians have never acquired food production capacities (or at least integrated it into their culture), it appears that agricultural domestication began about 8,500 BCE with animal domestication about 8,000 BCE (using calibrated dating) in the Fertile Crescent area. It is with the sedentary lifestyle that agricultural life requires that inter-regional systems became possible.

There are, Dussel argues, three stages of human history in which one can witness shifts of power and influence, before the fourth stage of world-historical development, in which the world-system was formed. Briefly, the three prior stages are as follows. The first inter-regional system proper began around 4,000 BCE and circulated between Egypt and Mesopotamia. Two

points are worth noting. First, there was as yet no center or periphery of the world. Second, and against the Eurocentric philosophical tradition, this point clearly means that Greece was not the origin of even human urbanization. While Egypt and Mesopotamia formed the first interregional system, others formed during this period in India, China, in the Pacific Ocean, and in the Americas. The second stage is marked by the rise of the ambiguously named Indo-European interregional system, beginning at about 200 BCE. Here a center *is* clearly established, namely with the Persian region and the Hellenic world (which did begin to take prominence at about 400 BCE). The third stage begins around the fourth century CE, in which the center of power shifts largely to the world of Islam, China rises as the productive center, and Western Europe remains comparatively on the margins. This brings one to the cusp of the fourth stage in which the world system develops.

What is critical for Dussel in understanding the rise of Europe, as occasioned by the joining of all major inter-regional systems to form the world-system, is the sheer happenstance that led to its prominence. The pre-modern inter-regional systems other than that of Europe did not prize the notion of connecting the world by trade route. Spain, in fact, was no different. It will be recalled that Christopher Columbus himself aimed only to establish a trade route to India, which at that time was a center of commerce, but that Portugal had already taken the known route around Africa. That Columbus sailed west and “discovered” the “new world,” then, *was an accident*, and he died believing that he had found a route to India. It was Amerigo Vespucci who first recognized the land navigated by Columbus as other than India, and it is for that reason that these lands bear his name as the Americas. Twenty-five years after the discovery of the silver mines of Potosí in Peru and those in Zacatecas Mexico, Spain was able to pay for its great armada that defeated the Turks in 1571 in Lepanto. In this way Spain gained control of the

Mediterranean and established itself *as the center* of the new world-system to which the newly conquered lands were its periphery. Eventually Seville ceded its place to Amsterdam as the greatest sea port, and in 1636 Descartes wrote his *Le Discours de la Méthode* there.²⁷

The point in all of Dussel's analysis is not to provide a reductive account of the intellectual creativity of modern natural science—as if it could be reduced to economics and political infrastructure. Rather, he only wants to argue that the complex underlying manifolds of the modern world were given by the conquest of the so-called “new world.”²⁸ Modern science and developments in instrumental reason find their role *within* this account. For while the processes of colonization, subjugation, and domination are inherent to the development of the modern world, which used so many of the conquered peoples as slaves and cash-crop labor to gain an economic comparative advantage, the discovery of the “new world” itself required the ability to *manage* these peripheral peoples.²⁹ This management, Dussel notes, was achieved by a *quantitative simplification* that by its very character left out valid variables (e.g. cultural, religious, ethical values) and sought to encompass the *Lebenswelt* by a manipulative technology that subjugated both nature and persons.³⁰ It was in this way, Dussel argues, that the modern world became disenchanted or leveled out.

Dussel's account of space as part of the world-system thus coordinates the actual misery of exteriorized victims with temporal dimensions. It exposes the myth of modernity, which sees the source of the center's domination as the result of some inner superiority, by showing how it resulted instead by mere happenstance. Finally, and most important for the present purposes, this account of history is truly trans-modern not postmodern, since it does not begin from a Eurocentric conception of modernity. As a result, it does not conceive of the solution to the problems of modernity as a matter of simply combating instrumental reason (Habermas and

Heidegger alike), since such reason is not the principal cause of the malaise of modernity. Instead, his project opposes “the irrational element of [modernity’s] sacrificial myth,” that is its *dominating* reason, by exposing it and embracing the reason “of the Other as a step toward a trans-modern *worldhood*.”³¹

4. Spacing Human History

I think that this account of historical consciousness, and especially its way of addressing “modernity” is compelling, since it recognizes that more than intellectual revolutions (e.g. Descartes’ mathematics) are responsible for the present state of the world. Technology alone was not responsible for the Spaniard’s success in conquering Latin America, since it is clear that the spread of disease did more than guns and might ever could. Additionally, Dussel’s account does not leave out whole continents of people, as Hegel and even Heidegger do in their considerations of modernity. Even if Africa and Latin America have not reached the economic prosperity of the G-7, Dussel’s point is that this very fact means that they *are* modern. These continents (generally speaking) enter modernity *as* its underside, *as* the discarded exterior. Finally, and above all, Dussel is urging that philosophers reconsider the privileged status “nihilism” has come to have as defining *the* capital problem of modernity. In what follows, I want to extend this account to redress the lacunae present in Ricoeur’s account of the human historical condition. Like Ricoeur, then, I shall focus on both the critical and ontological aspects of spatial human existence, and I shall do so by drawing from the best accounts available in phenomenological hermeneutics to flesh these notions out. Unlike Ricoeur’s very thorough (multi-volume) account, I shall here leave the present statement only as an outline, something that I submit as a corrigible phenomenology.³²

(a) *Critical Human History*

My complementary proposals for the temporal metacategories Ricoeur identifies as the space of experience and the horizon of expectation are: the *differential of space* and the *integral of space*. Turning first to the differential of space the key point is that space, just like time, gains existential significance through its ordering and distribution of existential possibilities. Just as the space of experience is the persistence of the past in the present, so too the differential of space is persistence of spatial ecosystems in the present. In each case this persistence is defined in terms of the limited set of possibilities afforded, and just as the metaphor of the “space of experience” suggests the different possible traversals for the significance of past events, so too the differences that make up the differential of space suggest the divergent possibilities of spatial existence that span from the most privileged in the center of the world-system to the most disadvantaged inhabiting its periphery.

A note seems to be in order concerning the use I am making here of Dussel’s account of “center” and “periphery.” I recognize that for Dussel the terms “center” and “periphery” receive their full articulation only within an ethical context. Yet, I would like here to think of these terms solely in terms of the differences of ecosystemic systematization, thereby prescinding from the *imperatives* these terms carry in order to isolate their merely existential significance. For example, the United States exhibits more systematic process in its distribution of existential possibilities (albeit at the price of Others!) than does Mexico. This latter notion still makes sense, because, to continue the example, the increases systematization of world-process in the

United States allows more people to pursue careers in matters such as solid-state physics or even philosophy than does a nation like Mexico.

These points have adequately prepared the account of the *integral of space*. Just as the horizon of expectation is the condition for future possibilities in the present, so too the integral of space conditions the *locus* of those possibilities according to the systematic character of a conditioned series of cycles. “Future” possibility, which is to say human meaning, is concretely made available as integrated into certain places. The “lights of Paris” are not merely an attraction; they symbolize the location to which one *must* travel even to have access to certain possibilities.

The final spatial historical condition of existence, which is complementary to Ricoeur’s collective singularity, is what may be called *collective plurality*. Ricoeur has already established hermeneutic grounds to check the totalizing claims of collective singularity, and so by collective plurality I do not mean to suggest a notion that is intended to temper the possibility of a unified history. Rather, just as the metacategory of collective singularity is what enables one to think the human condition as unified, so the metacategory of collective plurality enables one to think this same collectivity as subject to multiple crises, as plural. Dussel’s argument that Latin America and Africa exist in the underside of modernity is a claim to the *unity* of the human historical condition as *pluralized*. The spatial considerations of the human condition, then, suggest that collective plurality is a complementary metacategory.

Because this point bears on the very character of what is often recognized as the phenomenon of modernity, I shall dwell on a few points that follow from the foregoing. To begin, one must recognize that Dussel in no way attempts to *replace* the critique of nihilism with his own account. Instead, he draws attention to another and, from an existential perspective,

more pressing problem. In short, modernity suffers *at least* two crises and quite possibly others. The understanding of history is, after all, a hermeneutic matter in the strict sense of hermeneutics as interpretive. How, then, is one to understand the phenomenon of modernity? In response to this question, I think that two more items prove critical.

First, one must recognize that there certainly was a scientific revolution shortly after the emergence of the world-system, and epistemic claims have undergone a five-fold change concerning truth, certainty, knowledge, necessity, and causality.³³ In Aristotle's *Posterior Analytics*, science (*epistēmē*) is envisaged as true, certain knowledge of causal *necessity*. Modern science, by contrast, is not absolutely true, but only probably true. To know something scientifically means only to be educated in the reasons for accepting these best explanations. Furthermore, its concern addresses not only classical correlations but statistical probabilities—something unknown to Aristotle. As a result, modern science does not use Aristotle's four causes, and above all jettisons his account of teleology. The result is that modern science not only seeks something less arduous, more dynamic, and more effective, it also provides a different sense of the meaningful dimension of the world. At least one reason I could not call common sense "*phronēsis*" is because the framework for that term does not exist in the present account. For Aristotle the universe was divided between one part that was necessary and another that was contingent. The human mind, then, was split between science and opinion, theory and practice, wisdom and prudence. Above all, the shift in rationality begun with Bacon, Descartes, and Galileo displaces the sense of wisdom found in Aristotle, and now concerns something like a best account of the significance of all the various intelligible dimensions of existence, including the historically and globally contingent dimension of social reality.

Second, I do think that Dussel is largely correct in diagnosing the exclusive focus on nihilism and disenchantment as Eurocentric. The move to what Charles Taylor calls “Secularity₃” is primarily a phenomenon that only makes sense for the history of European thought.³⁴ Nietzsche’s “God is dead” is true for Europe and its privileged colonies (such as the United States), but unless one wants to postulate something like a strict developmental thesis in which the rest of the world only lags behind Europe rather than inhabits its underside, it is not clear that his analysis generalizes well beyond that scope. Furthermore, such a developmental thesis would understand the “West’s” privileged position as the result of some intrinsic superiority, rather than the chance circumstances that led Columbus to “the new world.” The result of viewing the Encounter from a non-Eurocentric perspective, then, is the recognition that the modern world is fissured by *crises* and not just a single crisis. This is why in order to think these two crises, and the two dimensions of modernity (centrality and periphery) *together* as part of an ongoing process, it must be possible to think this collectivity as plural.

(b) Ontological Human History

I now follow the “referent” of these spatial conditions for human consciousness to their ontological plane. Like the ontological account of temporal existence, I think that there are three pertinent dimensions of spatial existence. Yet, because space has been subordinated to time in the history of philosophical thought generally, and phenomenological thought in particular, I shall have to look to a number of thinkers for this account. Additionally, and like the last section, I note that what follows is only an outline of their relation, not a full account.

The first of these dimensions is what one could rightly call *dwelling*, and this dimension of space may be said to be the primary focus of Dussel's own attempt to articulate the significance of the space of the world-system. In order to give his insights a phenomenological context, however, I consider his work in relation to Heidegger's statements on dwelling and Edward Casey's more recent work. The heart of Heidegger's essay "Building, Dwelling, Thinking," consists of a stunning reversal of the ordinary understanding of the relation of building to dwelling. Usually it is thought that in order to dwell somewhere, one must first build the required edifice. Yet, Heidegger argues that "building in the sense of constructing things" in fact presupposes dwelling.³⁵ For if one understands that the "nature of building is letting dwell," in the sense of gathering the meaningful world (earth, sky, mortals and immortals), then one recognizes that dwelling is primary.³⁶ It is dwelling that allows one to gain an existential foothold, so that one can build a place to inhabit. Casey, though he approaches the matter of dwelling through embodiment rather than gathering, may be seen to have extended Heidegger's account by articulating how there are in fact two aspects of dwelling: through the stability of place and by inhabiting place.³⁷ When I make a place to inhabit, I at the same time make a place stable, a place to which I may return as a home. Though I dwell in both cases, there is nice distinction here between inhabiting and stability.

What I want to note about these proposals is how they are completed, how they gain full articulation only with respect to the account of dwelling provided by the space of the world-system. Heidegger's opposition between dwelling and building, for example, opposes ontological dwelling to ontic building. While I agree there is a distinction here, one cannot continue holding to Heidegger's prioritization without meeting *The Regression Problem*. Even beyond this matter, it seems to me that Heidegger has failed to consider *building* in an

existentially significant way. *Who* does the building?³⁸ Even in the advantaged G-7 these people are often immigrants, and in non-privileged countries these workers sometimes live as indentured slaves (as is currently the case with the spectacular architecture in Dubai). This point is also something that should be taken to address the lacuna in Casey's work. It is not *simply* a matter of building an inhabitable or stable place in our world, because the existential possibilities that are distributed through the space of the world-system are what ultimately make sense of who builds the dwelling and where it is that one dwells. Indeed, both building and dwelling gain their ultimate significance in relation to just this kind of spatial existence to which Dussel draws one's attention.

Distinct from dwelling, however, there is also the space of embodiment. In order to address this space, I first clear the path to embodiment so that the following outline will not be mired in the history of Eurocentrism and male privilege. There has been in phenomenological discourses addressing the body a tendency to speak as if the white, male body were just the body of everyone. Merleau-Ponty, for example, notoriously analyses a woman walking down the street in what must be called a male heterosexual gaze. In a similar way, one can say that until the work of thinkers such as Franz Fanon (and hardly ever since), no attempt has been made to understand the body as racialized. In regard to this legacy I want to make one general point and one specific point. With regard to the general point, I openly acknowledge that even a corrigible phenomenology is not enough to circumvent the difficulties of false universalization.³⁹ This is why I believe that a distinction between "eidetic" and what I have elsewhere called "amplitive" analyses is necessary.⁴⁰ While eidetic analyses concern aspects of first-person consciousness that are *both* universal and necessary, amplitive analyses concern only invariance. My wager thus far is that all human rational beings exhibit the eidetic features that constitute cognitional

structure. Yet, with respect to the human body some features appear to be invariant (i.e. ampliative), and others only general characteristics within a given culture and time. These ampliative features are what I think make up the gendered, racial, ethnic, and related dimensions of embodiment. To undertake an analysis of these features phenomenologically is, I think, legitimate, but one must be clear that in doing so one takes care to check one's claims with the relevant sociological data. In response to the feminist critiques of Merleau-Ponty, I think that perhaps more of his work can be saved than realized, if one takes care to distinguish his eidetic descriptions from his ampliative ones—though because these last were taken to be universal, his work here ought to be criticized to ensure that his claims do not continue to support the entrenched male supremacy enjoyed by so many philosophers.

With respect to the particular point, I must make a more thorough-going correction. Since Husserl's initial distinction between *Körper* and *Leib* and continuing to contemporary phenomenological work as one finds, for example, in Michel Henry and Jean-Luc Marion, the hallmark of embodiment has been considered auto-affection.⁴¹ Marion, for example, writes: “[m]y flesh is distinguished from every object of the world ... [because] before even making itself be felt, it allows one to feel; in short, before making itself be seen and appearing, it makes me feel (myself) and appear.”⁴² I do not want to deny that when I touch myself I feel myself *feeling*. Instead, I want to argue that this just is not the whole story. As Fanon pointed out quite some time ago, the experience of raced peoples is different. “I came into the world,” he writes “imbued with the will to find a meaning in things, my spirit filled with the desire to attain to the source of the world, and then I found that I was an object in the midst of other objects.”⁴³ The point is that *in fact* I must live my flesh in an equiprimordial relation to the gaze of others. This is true of *everyone*, not just raced persons. The only reason Merleau-Ponty, Henry, Marion and

others failed to notice this feature of embodiment is because they have enjoyed the privilege that white people are just people. Because they have not had the experience of being seen as of a particular race, they did not suppose that they were in fact intended as of the white race.⁴⁴ The immediate phenomenological consequence is that while there is a certain auto-affective experience at the heart of embodiment, it only finds completion in the *hetero-affection* of social existence where dark skin counts as black in most nations in the world today, and in a similar way brown skin counts as an array of races and ethnicities. In short, in addition to the first-person singular experience of embodiment, there is the first-person plural experience that results from collective intentions.

My spatial embodiment, then, must be understood as that space that I come to understand, even experience in relation to my concern, and not simply in relation to auto-affectation. It is a matter of existential significance to me whether my arm is too close to an open flame, and as Merleau-Ponty notes my body is not beside items in the world as other items are beside each other: “[t]he outline of my body is a frontier which ordinary spatial relations do not cross.”⁴⁵ I am not here interested in Merleau-Ponty’s thesis that my body schematizes perception, but instead his attention to the fact bodily space is peculiarly meaningful.⁴⁶ On this score, Casey’s distinctions between direction and geometric dimension, and also between direction and embodied dimension is insightful. In line with the present essay, it may be argued that there is a difference between the space of natural world-process and the direction and dimensions of my body. While the former includes longitudes and latitudes, the latter, Casey argues, are articulated in terms of dyadic structures: here-there, near-far, above-below, before-behind, and left-right.⁴⁷ The first two pairs make up the *directions* of my spatial embodiment; the last three make up the *dimensions* of my embodiment. Taken together, then, these five pairs

form the spatial outline of my embodied existence. They enable me to travel from my writing desk to my dining table, for in both cases it is my embodied spatiality that makes up the existential ontology of these spatial differences.

This last example brings one to the matter of regions, which is *the space through which one moves*. On this matter Casey's approach is much like Husserl's in his 1907 lectures *Thing and Space*. Husserl argues from one's perception of a thing to a realm: "a perceived thing is never there alone by itself; instead, it stands before our eyes in the midst of determinate, intuited environing things."⁴⁸ In a similar way Casey argues from one's body to regions, for it is "lived bodies [that] serve both to animate and to connect places and regions."⁴⁹ I do not think that either of these approaches is helpful for the present inquiry, since I am interested in approaching space directly through care. While it might be tempting to retrieve Heidegger's account in *Being and Time* (§§22-23), the way in which his argument subordinates his statements to time, makes his descriptions difficult to extricate from his overall aim. My proposal, then, is to look to the work of Gaston Bachelard.

In the *Poetics of Space* Bachelard seeks "to determine the human value of the sorts of space that may be grasped, that may be defended against adverse forces, the space we love."⁵⁰ This space, he argues, is intimate space and is strictly distinct from geometrical or physical space.⁵¹ Furthermore, he is clear that each of these spaces is value-laden.⁵² This intimate space, then, sets the regions, the boundaries to the space of care. The region of distance between myself and my lover is one that I come to understand as this intimate space—whether it is near (before me on a bed) or far (off at a conference in another city). The series of investigations he takes up show the multiple, even heterogeneous forms in which regional space is lived through. The poetic word (one recalls that Bachelard is throughout always drawing his phenomenological

experiences from poetic statements) shows one that there are regions that make up the houses of humans, the houses of things, and the region for inhabiting proper. Additionally, these regions are what make up the inside of items, and the other side just beyond my reach. Finally, each of these spaces are themselves open to a *dialect of size* that stands between the two poles of the miniature, such as the impossibly small found in fairy tales, and the immediately immense, such as the experience of a vast forest that appears without end.

While I have only just outlined the existential ontology of space, my aim here has been merely to indicate those aspects that are complementary the temporal dimensions Ricoeur finds. Both the spatial conditions and ontology of existential meaning form equiprimordial aspects of the human condition along with those of the temporal conditions and ontology Ricoeur identifies. Taken together, they also provide the means by which one can understand catastrophic Events in human history.

5. Catastrophic Events

The conditions for Events in social reality are rather more complicated than those one finds in nature. The reasons for this ought to be clear enough. To begin, these Events must take place with respect to meaningful underlying complex manifolds, and this meaning is to be understood in both its signifying and existential dimensions. Clearly, Events of social reality presuppose the signifying intelligibilities that make up the human world, since without these there just is no social reality. Yet, they must also presuppose those existential intelligibilities that make the human world a matter of care, since any emergence of new conditioned series of ecosystems is bound to matter to those people who continue to sustain that conditioned series of cycles. Second, unlike natural Events, human events may be either primarily epistemic in character, as

in the case of a scientific revolution, or both epistemic and ontological in character, as in the case of the French Revolution, in which not only did people come to a fuller understanding of liberty and democracy, but they also brought a new order of social being into existence. Third, while both natural and human worlds are subject to catastrophic Events, occurrences in which the conditions for the recurrence of cycles are abrogated along with the possibilities for emergence that they engender, human catastrophes (if not total) leave a trace of their occurrence that fundamentally alters the human existential condition. Thus next I briefly examine the conditions of these Events and sketch the outlines for their singular character.

(a) Dialectical Heuristic Structure

I make use of a final heuristic structure that Lonergan outlines in order to account for the conditions for catastrophic Events. To do so, I want to begin by noting a radical tension in the order of human goods that cannot be overcome, and then I shall turn to a three-fold rehabilitation of bias. These two steps will provide the means by which one can understand the (quasi-)process that dialectics undertakes to investigate.

To make a case for the radical tension at the heart of the human community, I think it will be easiest to begin with a concrete case.

Drinking a cup of coffee. This morning as I sat down to write the present chapter, I drank a cup of coffee to remain alert. It was not a difficult item to secure, since I only added ground coffee beans to the filtration system of my coffee machine and water. Then I hit a button and within a few minutes I had enough to fill a

cup, to which I added sugar and milk. After waiting a bit for it to cool, I began drinking the coffee.

While we (modern/privileged citizens of the G-7) take these events to be rather unremarkable, one must remember that this drink was something of a delicacy in Europe during the 18th century, and that the drink itself does not seem to have existed before the fifteenth century.⁵³ How, then, is it possible that such an item became so common?

There are two ways that one could try and answer that question. First, one could undertake an historical investigation. Second, one could try and answer in terms of all the institutions that currently function that allow people to obtain produce with such ease. Because I am interested in the synchronic possibility of Events, I am going to try this second route. Among these institutions, then, are the agricultural, those concerned with transport, the grocery stores that distribute it, the advertisement companies that raised my awareness about a particular brand, the kitchen appliance companies that sold my coffee machine, and so on. Looked at from this second perspective one notes something remarkable. While coffee is a good of its own, there is a whole series of conditioned cycles, namely institutions, which provide me with access to that coffee. These institutions, then, *are good in their own way*, and so it makes sense to claim that they exhibit a “good of order” (I 238).

The result is that there seems to be a schism between goods that are the immediate objects of my desires, and which usually define an item as of existential significance, and the goods of order, which provide access to those objects. This is a problem long familiar to philosophers. Indeed, Plato’s *Republic* in many ways can be seen as an attempt to reconcile these two claims through a parallel of the parts of the soul with the parts of the city (*polis*).⁵⁴

Despite Socrates' argument, however, it is not clear that the two can be cleanly aligned. The problem concerns not only the case that an individual's desires may conflict with the healthy sustainment of the good of order. More crucially, there is simply a difference in the *intelligibility* grasped when one focuses on the well functioning of institutions, and that which one grasps when one focuses on the object of one's desires. What one understands in the former case is not this or that individual desire, but rather a certain series of relations that operate at the level of a population. While the outcomes at the level of a population may be more or less guaranteed (depending on the effectiveness of various Biopolitical technologies), the individual results will vary of necessity.

Because there is no guarantee that goods of order *always* include individual goods, there is a *radical* tension of community. This means, among other things, that even if humans were flawless beings of pure intelligence, there would only be continual progress, continual development.⁵⁵ It is not the case that humans would inhabit a conflict free environment—a utopia. Rather, we would only work together to solve problems without interruption. There would nevertheless remain problems that required resolution, and quite possibly, though I am not certain, even some tragic situations might prove unavoidable.⁵⁶

Beyond the radical tension at the heart of social reality, there is the more mundane fact of bias. Following Lonergan, I am using the term “bias” to mean an interruption of intellectual inquiry, and not some sort of preconception. It is well known that there are certain people who are egoists, that certain groups that exist only for their own gain, but it is even the case that common sense when functioning intelligently can cause problems. These are three biases of human inquiry, and I pause to discuss them briefly, since they account for the additional difficulties humans have encountered throughout history.⁵⁷

In *Oneself as Another*, Ricoeur recalls that the Aristotelian notion of *philautia* (self-love or self-esteem) undercuts the ordinary opposition between egoism and altruism.⁵⁸ Having self-esteem is necessary simply to lead one's life and interact appropriately with others. Tending or caring for one's needs is hardly egoism. In the problematic sense, then, "egoism" designates an interruption in one's intelligent process of asking and answering questions. One stops short of asking questions such as: well, how would this course of action affect other people? The golden rule, then, does not mean treat everyone the same—because that might very well mean that one is mistreating others. Rather, it means that *ceteris paribus* the exchange of actors in a situation does not in itself constitute grounds for acting differently. Whether or not the situations are the same, and exactly to what extent they are altered, is a matter of common sense. What distinguishes the "egoist" from the person of self-esteem is that the former simply fails to consider the relevant pertinent questions, since they might limit his own actions.

Just as individuals can stop asking further pertinent questions, so too can groups of people stop asking such questions when they exceed the scope of their narrow concerns, and this constitutes group bias. While one hopes to live with others in just institutions, the desires of particular groups may work against this ideal. What must be grasped, however, is that group bias does not apply simply to a class (i.e. economic groups), but may function by implicit groups (according to social roles), by groups defined through the functioning of technology (e.g. scientists and engineers), by politics, and by other means still. Here one finds some relation with all the "-isms," such as sexism or racism, since these terms often function to exclude certain people from the privileges of a specific group.

A final form of bias that I want to consider here is "general bias" (*I* 250). While the other forms of bias emerge from the dysfunction of inquiry, this form of bias emerges from the well

functioning of common sense. The problem is that common sense is inherently biased, because it always asks after the immediate and serviceable, its canon of inquiry limits it from considerations that may be long term and not apparent. One can only know of such long term consequences through the intelligent inquiry that one finds, for example, in scientific investigation. As a result, those consequences may well be ignored to the detriment of a whole community, nation, or even the world. A case in point would be global climate change, which is a thesis supported by the correlation of data from across scientific disciplines. Extrapolations of CO₂ levels are correlated with observations of polar ice caps, cycles of plate tectonics, the proliferation of certain vegetation, and many other items. To the non-specialist, then, it may appear as much speculation, and because it fails to have results that are immediately serviceable it is often dismissed. I would add that certain group biases often collude to promote this dismissal.

Lonergan's account of the dialectical heuristic structure is that form of inquiry that asks after the results of the radical tensions of community and bias. While the other forms of inquiry anticipate intelligent answers, dialectical inquiry anticipates a mixture of intelligibility and unintelligibility in human affairs (*I* 242). In line with the other heuristic structures, dialectical heuristic structure seeks "the intelligible in relation to the surd of ..." in some matter of social reality. It is the generic structure, one might say, of critical thought, whether this is ideological critique, genealogical suspicion, psychoanalytic interpretation or otherwise. It seeks to understand the relations of events, even Events, as the results of unintelligence, and when it thus seeks the unintelligent in human history it looks to the function of bias.

Generically, it may be claimed that because the human world is subject to emergent probability, and provided some unforetold cataclysm does not occur, it will exhibit a cumulative

realization or emergent cycles that typify finality. Yet, in the shorter run, it is often the case that both individual and group biases are the sources of unintelligent action and much actual misery. More problematically, general bias leads to a longer cycle of decline, since the continued dismissal of theoretical concerns for common sense action are themselves cumulative. “This disregard,” writes Lonergan, “not only excludes their implementation but also deprives subsequent stages both of the further ideas to which they would give rise and of the correction that they and their retinue would bring to the ideas that are implemented” (*I* 254). This makes collective human action radically incapable of determining whether a certain action is an advance or not. As a result, one tends to find the decline of nations or even civilizations.

(b) On Singularity

In turning to catastrophic Events, such as the Encounter, one finds grounds for a complementary elaboration of Lonergan’s account of the dialectic of historical consciousness. The heart of these matters is not simply cumulative degeneration, but more centrally the maculated trace that indelibly stains human existence.

This can be illustrated by returning again to the difference between Christopher Columbus and Amerigo Vespucci. While it seems silly to us that Columbus went to his grave supposing that he had found a route to India and not a wholly unexpected set of continents, what this point in fact indicates is the cultural *shock* of the Encounter. He had no other categories available for his understanding of the human world, and so simply failed to make the required insight. For the Amerindians as well, it is well known that the Aztecs surmised that the Spanish invaders were Quetzalcoatl returned. Why they did not instead suppose that they were just

humans wanting to invade may again be explained by *a lack of existentially meaningful resources*. Often these facts are discussed as “disbelief,” but this is not a matter of judging *whether* a certain set of events occurred, but determining how one is supposed to raise the questions for judgment. It is for this reason that catastrophic Events function somewhat like a trauma for human historical consciousness. One may remember the effect 9/11 had for citizens of the United States, such that all the news networks replayed the same images without any adequate ability to characterize what had occurred. Arendt notes there was a similar reaction to the “discovery” of the camps in Nazi Germany, and at an individual level Viktor Frankl notes how this point was similar even entering the camps. Shock and the trauma-like experience that follows appears to be constitutive of catastrophic Events

Despite the fact that I have just begun with a bold series of comparisons of Events that many would say cannot be compared, I think it is this shock that can help illuminate the character of these Event’s historical Singularity. First, following Ricoeur, I think that one must draw a distinction between moral singularity and historical singularity. Ricoeur argues that a moral singularity may be understood as the extreme limit of inhuman action, such that it outstrips negative norms (MHF 428/327). One may thus claim without any concern of diminishing the uniqueness of the catastrophes that the Shoah, the Gulags, and the Encounter were all moral singularities. Because a moral singularity is precisely something that one cannot normatively comprehend, one is only claiming that each of these Events is of such a moral character as to exceed comprehension. They are thus not like species and genus, because genus and species are precisely *what one understands*, and what one is claiming in this case is that they are only alike insofar as one cannot understand them. Second, I argue that at a purely historical and banal level, every event may be said to be singular in the sense of an unrepeatable unique action. An

historical Singularity, then, may be considered an unrepeatable Event. This point also follows as a matter of course from established definitions about events, emergence, and Events. A Singular catastrophe, then, is just like a moral singularity, since it is one that exceeds historical comprehension. One is only claiming that they are alike insofar as they are not fully understandable.

To require that no one write on these catastrophies would be to dishonor their significance. Indeed it would be to condemn them to oblivion. The moral imperative is that one *must* write histories on these matters, that history, in especially these cases, must be allowed to carry out the process of mourning. Yet, Ricoeur is attentive to the rub in my second point suggestion, namely that history by its very character must question the representation of events, and furthermore it must make use of comparison. In this way the “perverse slippage from similarity to exoneration is made possible by assimilating the equivalence of crimes to the compensation of one by the other” (MHF 434/331).

My solution to this paradox is that legitimate comparisons aid in determining, in explicating the incomparability of historical Singularities. While Ricoeur still speaks of genus and species, I think that an indefinite number of interpretations of these Events are both possible, and must be undertaken for the sake of remembering and mourning their occurrence. Furthermore, it is precisely *by means of this work* that one gains a sense of these Event’s incomparability. It is through a lack of investigation that one may be tempted to elide the differences among them and make simple comparisons. There is thus an honest use of comparatives that remains possible, so long as one’s history does not produce the illusion of inevitability or in some way or other foreclose this fundamental lack of understanding that makes these catastrophic events in the first place. One might additionally state that these histories must

be written in such a manner that is ever mindful of the fact that these Events in meaning are at the same time moral singularities.

To connect these points to the foregoing discussion of dialectical heuristic structure, one may say, first, that it is through the investigation of the social surd in relation to what is intelligible about social reality that one is able to articulate the significance of the loss that a catastrophic Event brings. Of course this is not to say that all dialectical investigation is investigation of Evental catastrophes or that all dialectical distortion in social reality is catastrophic. The point is rather that it is only through a study of social surds that it is possible at all to come to explicate an historical Singularity. Second, this means that the process of mourning that historians undertake in approaching these Singularities can only properly be undertaken if their work has the character of a dialectical inquiry. For it is only in an inquiry that one isolates a social surd as irreducible that one is able to avoid travesty the occurrence of a Singular catastrophe. There is, in short, a restriction on the indefiniteness of interpretations of Singular catastrophes, which prevents one from forgetting, abandoning, or betraying the memory of those who suffered, from forgetting the course of human history as it has unfolded. It is precisely their character as catastrophic Events that legitimizes their investigation, which is to say it is only by recognizing the existence of a social surd that one is able to investigate catastrophic Singularities at all.

6. The Human Conditions

In the course of this chapter I have accomplished a number of points. First, I have retrieved a sense of existential meaning through an analysis of Heidegger's account of *Sorge*, which furnished the basis for the investigation into human historical consciousness. Second, in order to

make this retrieval serviceable for present purposes, I solved one of the long standing problems posed by the incompleteness of *Being and Time*. By drawing on the account of social reality in its signifying dimension, I argued that personal existential meaning and social or historical existential meaning were related through collective intentions, the assignment function, a process of recognition, and an ecosystemic pattern of intelligibility. This retrieval was, at the same time, a revival of existentialism as a legitimate domain of philosophical investigation. Despite the fact that existentialism is still popular with many readers, one may say that Heidegger's "Letter on Humanism" officially spelled the end of the movement's claim to address what is most significant in philosophy, which for Heidegger was the meaning of *Sein* or *Ereignis*. For him, moreover, existentialism blocked the path to this question, and this is why he declared himself directly opposed to it. The aftermath of existentialism in Continental philosophy yielded a turn to language, the rise of structuralism and post-structuralism, and eventually post-modernism.

I have attempted to provide, in the previous chapter and in the present one, the philosophic grounds for a new form of existentialism. Additionally, because I have distinguished between personal and world-historical existential meaning through my account of the objectivity of social reality, I have provided grounds to understand the human condition(s) as existentially meaningful.

As a third point, I have situated Ricoeur's work on human historical consciousness as providing the framework for understanding the temporal conditions and ontology of that existence. In order amplify Ricoeur's treatment of this matter, however, I undertook a detour through Dussel's account of modernity as a global phenomenon that distributes existential possibilities unequally throughout the planet. This detour enabled me to accomplish two more items simultaneously. First, I was able to use it in conjunction with a number of other

phenomenological analyses to provide the complementary spatial aspects to Ricoeur's temporal work. I thus established the spatial conditions and ontology of the human condition in outline form. Yet second, I at the same time corrected the exclusively Eurocentric account of modernity that links Europe's rise to some intrinsic character of merit and subordinates spatial considerations to purely temporal ones. I was thus able to situate the various critiques of modern instrumental reason, secularism, and nihilism in relation to Dussel's own account of modernity as a fundamentally unjust system of distribution and exchange.

These points prepared the way, sixth, for my analysis of catastrophic Events of historical meaning. Like natural catastrophes, these Events are marked by the *absence* of recurrent cycles. Unlike natural catastrophes, they are also marked by the *presence* of a stain or trace in the human condition. While it is true that some of the Amerindians regularly participated in ritual sacrifice, and that some of the civilizations in Latin American were tyrannical, however they might have managed to overcome these evil practices were simply erased after the Encounter. So too were the possibilities of those who had nothing to do with these practices. The novelty of my approach to historical Singularities as Events of existential meaning enabled me, in the seventh place, to avoid the dual errors of those who wish to make blithe comparisons and those who discourage any comparison. As my brief analysis of shock demonstrated, what is lacking is any available categories to make sense of these Events. One must remember that when a catastrophic Event occurs, even the possibilities sustained by those ecosystems are forever lost. Afterwards there is not even an all that could have been, since there is no all to the possibilities they engender. This loss is thus radical in an utterly comprehensive way. Thus, while no account will ever be final, it is by attempting to work through these Events that we are able to mourn their occurrence and maintain them in our cultural memory.

My last chapter ended on the character of political intervention, suggesting that it is required to overcome the current injustices in our world, and that it must find a place within this world by erecting institutions for its maintenance. I want to conclude the present chapter with a similar suggestion, for it is this practice of historical memory that enables us to appreciate our historical existence in increasingly better ways, and mourn the loss of what we are unable even to fathom. If citizens and activists must be the ones responsible for political intervention, then perhaps philosophers may aid historians and artists in this latter task.

Part III

The Metaphysics of Excess

9

Metaphysical Hermeneutics: On Emergence

“The Event [*Das Ereignis*] is that self-supplying and self-mediating midpoint into which all essencing [*Wesung*] of the truth of Being [*des Seyns*] must be thought back in advance.”
 –Heidegger, §34 *Beiträge Zur Philosophie*

A certain hope began the present inquiry. It was a hope to recover the Platonic sense of *to hyperekhon*, that which exceeds being, whether understood ethicopolitically as one finds in the *Republic*'s account of the good, aesthetically as one finds in the *Symposium*, or even as the nonbeing in which being partakes as otherness in the *Sophist*. The task of those who seek wisdom rather than knowledge or existential possibility, the task of the philosopher, is to attend to this fragile possibility of thought. Yet a straightforward retrieval of Plato no longer remains possible, especially after Kant. Though Heidegger's sense of *Ereignis* might reasonably be understood as a finite retrieval of Platonic excess after Kant, it was the Cantorian Revolution that has made Heidegger's trial an infeasible one today. The long road of traversals beginning in the second chapter have thus been guided by the hope, and no small number of wagers, that it might yet be possible to produce a statement of wisdom in which it is recognized that there is something that exceeds being. Having come to the end of many of these traversals, it is the aim of the present chapter to produce a provisional statement of what this excess is through a Metaphysical investigation of Events and Emergence.

There is, I think, a philosophical condition to the any entry into Metaphysical discussion today. If one is yet to use this term, then one must, it seems to me, make sense of the insight Aristotle expresses in the statement: “*to de on legetai men pollakhōs*” or “being is said in many ways.”¹ It is still a Metaphysical task to determine the manifold ways in which being is

understood, and what the relation among those ways is. The argument in the foregoing chapters, however, suggests that the qualification Aristotle appends to this statement, namely “*alla pros hen*,” or “but to one [primary sense]” is to be treated carefully.² On the one hand, Aristotle has in mind the specific matter concerning *ousia*, which is something that I shall address below as in need of rectification, even rejection (§2.a). On the other hand, the utter bifurcation of the senses of being would be tantamount to a failure to make sense of reality. Viewed from the present position the difference between those who would argue that being is a univocal term and those who would argue for some form of analogy is minimal, since both are committed to the philosophical aim that wisdom is not satisfied with an equivocal account of reality. An argument to the effect that being is sundered (or otherwise divided) is nothing more than a failure to make sense of what is. My own arguments concerning excess, as much as Plato’s, are arguments concerning what is not, but they are not arguments concerning any duality of being.

The path to infinite hermeneutics makes use of a third model, which is cognitional structure. On this model of inquiry, whenever one comes to a virtually unconditioned judgment, one comes to understand what is, or reality. If one comes to a probable judgment, one comes to understand probably what is. The primary sense to which all the senses of being are referred is thus this sense that reality is what one understands when one comes to answer a question for reflection and no further pertinent questions remain to be asked. In the foregoing investigation I have isolated four primary domains of meaning, domains of understanding being: the signifying, the symbolic, the historically existential, and the personally existential. Yet, in each case, what is understood is being, which is thus neither a mere linguistic phenomenon, nor an experience, but the content of a reflective insight.

Departing from this primary sense of being, one finds that much remains to be said about its character—especially if one is to broach the possibility of its excess. Following Lonergan it is possible to address what he calls the discipline of metaphysics by attempting to “leap ahead” of the present state of scientific inquiry and ask about what can be known now of being that will be known when (in a counterfactual sense) everything is known about being. One is able to make this leap by reflecting on the very character of cognitional structure itself. Following Ricoeur, however, it is possible to address what he calls the discipline of metaphysics by following one’s inquiry into meaningful statements to their referent as being. In this case, one does not leap ahead of any scientific inquiry, but is instead engaged in the task of producing a corrigible account of what is based on the best epistemic and symbolic practices available. Furthermore, in both cases it is possible to ask whether there is something that exceeds those accounts of being.

It appears to me, then, that there are multiple ways to address the character of being with respect to its one primary sense as the objective of inquiry. As I shall argue below, their mutual inquiry is even complimentary (§3.a). In order to avoid terminological confusion I want to designate these three different approaches with different names. By “metaphysics” proper, I intend the investigation that one finds in Ricoeur’s work, such that one is engaged in a task of producing the best account of the character of being according to what is known and understood now. By “ontology,” I intend the investigation that inquires into being through reflection on the implications of cognitional structure itself. By the term “meta-ontology” I intend that line of inquiry that asks after the beyond of being in either (and both) of the other two forms of inquiry. Finally, by the term “Metaphysics,” with a capital ‘M,’ I intend any form of inquiry that takes up questions along any of the foregoing three lines. I shall not here even attempt to provide a full

account of being as investigated through these different approaches, but shall instead look to those aspects that will illuminate the possibility of Emergence—that is to say, with an eye toward their meta-ontological implications.

1. [m]etaphysics

The path that Ricoeur provides to retrieve metaphysics is to follow the referent of each domain of meaning, or in Lonerganian terms, to inquire about character of the intelligibility that one grasps in reflective judgments on the domains of meaning (MHF 454/347). What this means is that Ricoeur's method in approaching metaphysics is one of articulation; it is a "movement" from a discourse or an ongoing inquiry (such as history) to a corrigible statement about a best probable judgment concerning the reality of the world. In his major works beginning with *The Rule of Metaphor*, Ricoeur was sure to return to the questions of metaphysics since, to his mind, phenomenological hermeneutic inquiry remained incomplete unless this final step was taken. The turn from phenomenology to hermeneutics was born from precisely this need, and to forget this origin would thus risk forgetting the very character of the present inquiry's philosophical method. The way he carried out his provisional retrievals of metaphysics was *through the models* he was using to investigate other phenomena. In the last chapter of *The Rule of Metaphor*, for example, he looks to the referent of the semantic innovations he finds attested in metaphor, while in the last chapter of *Oneself as Another* he returns to Aristotle through Spinoza in order to provide a provisional metaphysical account of the human capacity implied by the analogical unity of narrative identity. The present metaphysical account thus follows this Ricoeurian movement from meaningful statements to the character of their being.

Some differences nevertheless exist between the present approach to metaphysics and Ricoeur's own retrievals. Ricoeur's aim in his metaphysical retrievals was almost always directed towards a recovery of human capacity in some sense. This is why towards the end of his life he focused on developing his account of the five human capacities: the power to remember (*le pouvoir faire mémoire*), "the power to speak, the power to act, the power to recount, [and] the power to be imputable with respect to one's actions as their genuine author" (MHF 450/343-4). The present argument, however, has been directed by the concerns set by Heidegger and Badiou, so that I have moved to consider the reality of scientific inquiry, which Ricoeur never considered, and have prescind entirely from the question of personal being. Of particular importance is the present use made of Lonergan's articulation of the heuristic structures and systematic, non-systematic, and developmental processes (though in the case of social reality, dialectical process must also be considered). The legitimacy for the philosophical analysis that supports these notions is the account of cognitional structure. Yet the actual accounts themselves turn on a correct description of the first-person investigation that makes up scientific thought. Thus, while the methodological warrant for extending hermeneutics into scientific inquiry turns on the correct description of cognitional structure, that which is understood is a metaphysical rather than an ontological matter.

Finally, I must broach a point that has remained somewhat implicit in the foregoing, but unless made explicit here threatens to make what follows rather unintelligible. While it is the case that metaphysics is concerned with producing the best account available of the character of the reality of our universe by taking each of the four meaningful domains into account (i.e. the signifying, symbolic, historically existential, and personally existential), only a little discernment is required to recognize that within the dimension of signification one can distinguish being as

understood *with* and being as understood *without* (at least in a primary sense) the empirical residue. Examples of the latter include formal theories, which make up the basis for both logic and mathematics. The difference between an insight into mathematics and a physical insight is that in the latter case, the differential equations one is considering, for example, are *additionally* understood as the relations among sensed data. Yet, the relations are the same in both cases, so that it is no mystery why mathematical insights are “applicable” to sensed data. Again, this is why social reality may be technologized by the biopolitical techniques Foucault identifies. Quite broadly, then, while there are four generic domains of meaning, there are various further distinctions that may be drawn.

In order to prepare the way for an account of Emergence I focus on three particular topics: causation, the distinction between truth and veracity, and the connections among the various senses of space and time. This last point is quite difficult, since it has not before been attempted owing to the disciplinary fact that philosophers have either denigrated the physical significance of space and time (as is the case in the last portions of *Being and Time*) or denigrated their existential significance (as is the case in almost any work on the subject attempted in the Anglo-American tradition). Lonergan does, to my mind, provide the pivotal argument for their connection in the fifth chapter of *Insight*, but I shall have to undertake some work to situate that argument within the present account of space and time, which is not entirely the same as his.

As the matter is somewhat technical, I state plainly that the principle concern here is to articulate an account in which the cosmic (or mathematico-scientific) account of space-time is related to the human (or existential) account of space and time. One reason for undertaking this argument is to provide a unified account of spatio-temporal being, which is a long-standing

problem in metaphysics. Furthermore, it demonstrates the connection between the human condition and the natural condition of our supposedly pitiless universe. Yet, a final reason this must be done to demonstrate that any recovery of *Ereignis* is not to be understood either in temporal or spatial terms. Because intuition for Kant was the primary mode of cognition (see chapter 1 §1.a), time as inner sense has gained a place of prominence in philosophic thought. That the *Ereignis* or the meaning of *Sein* should be understood in terms of time follows this basic Kantian point. After the Cantorian Revolution, however, it must be grasped that neither being nor its excess are to be understood fundamentally in terms of space or time, for to do so would be to succumb to the myth that knowing is like taking a look, which is just one more way to fall back into a ghostly metaphysics of presence. The point thus prepares the way for a post-Cantorian retrieval of *Ereignis*.

(a) *Causation*

In chapter three I argued that Continental philosophers, unlike Anglo-American philosophers, have been much less concerned with the realism/anti-realism debate than with the possibility of an instablist position on ontology. At the heart of this concern is the ontology of Events, in which the being of the universe undergoes radical and unpredictable shifts. The critical problem, I argued, was that of avoiding a collapse either into a straightforward stablism or a kind of unintelligible “Hericleitean” flux. I suggested that Heidegger’s elevation of potency beyond actuality in *Being and Time* was an attempt to make sense of this possibility in terms of his fundamental ontology (BT 38/63). Similarly, Badiou’s account of the axiom of choice and Cohen forcing in *Being and Event*, and his theory of points and subject organs in *Logics of*

Worlds serve an analogous function. My own proposal may be understood to integrate both approaches, for it draws on the equiprimordiality of possibility and actuality suggested by an ecosystems' approach to world process and the Evental causation that equiprimordiality makes intelligible.

That possibility and actuality are understood to be equiprimordial is grounded in the following two capital points of an ecosystemic account of world process: (a) the iteration of the complementarity of processes, i.e. that the complementarity of classical, non-systematic, and developmental processes condition the further occurrence of these processes, and (b) that the occurrence of this iteration may be understood statistically, which is to say that of the probabilities present in an ecosystem their actual occurrence is nevertheless a stochastic matter. The immediate consequence of these two points, I argued, was that the *possibilities* of the universe are brought into existence with the *actual* occurrence of ecosystems. There exists in every ecosystem, then, an inexistent, since these are the "impossibilities" of that ecosystem in the sense that they are the not yet existing possibilities.

Evental causation on this account significantly expands the sense of "events" in either Badiou or Heidegger. An occurrence or emergent process may be understood as an Event if it fits the following form: it is (a) a realization of an inexistent, (b) a radically discontinuous change, and (c) a process that (i) brings into existence new cycles with their possibilities, and exhibits progressive realization of some of those possibilities (for natural Events), or (ii) exhibits the marked absence of those cycles and their possibilities (for catastrophic Events), or (iii) exhibits a structure of wagering, verification, and transformation (for human Events). The emergence of a new ecosystem, such as that of the Florida Everglades, thus qualifies as an Event for the following reasons. First, the ecosystem brings with it new possibilities for probable

realization they are themselves the realization of the possibilities that did not exist a prior ecosystem (or set of ecosystems), meeting requirement (a). Yet, at the same time because an ecosystem such as the Everglades is itself a recurrence of cycles, which thus progressively realizes some of its possibilities, it meets requirement (c.i). Finally, because the emergence of new possibilities cannot be explained in terms of the prior complex underlying manifolds, the change is radically discontinuous, meeting (b).

The unique form of causation at stake with Events may be understood as situated unintelligibility. By this I mean that since Events are discontinuous with their complex underlying manifolds, their occurrence cannot be understood causally; rather they may be understood as a kind of intelligible non-causation. In order to spell out the metaphysical significance of intelligible non-causation (something that for Aristotle would have been a contradiction in terms), I offer a few remarks that I think will prepare the way to the relevant insight.

Given the advances of the sciences today, it is often noted in scholarship on Aristotelian metaphysics that his account of teleology is in need of modification. Sometimes attempts are made to save teleology through an account of “teleonomy,” or the minimal use that biology makes concerning the function of structures such as the heart.³ The foregoing analysis of the developmental heuristic structure suggests that in some ways this approach may be misguided. There are terminal points to a developmental sequence, deviation from which points may be said to constitute abnormality. The character of such insights is explanatory. But Aristotle’s *teleology* remained caught in a descriptive context. The substances which are supposed to exhibit such *entelechia* were described in terms of their relations to human perception, not in

relation to each other. If teleonomy is supposed to “save” Aristotle, then, it does a fairly poor job since it in fact *replaces* one notion with another.

In general, under the present account, one understands causes if one understands how proposed intelligibilities answer the questions one asks. In that case, one understands the (be)cause. With respect to physical causation in particular, then, one understands the causes if one understands how the proposed intelligibilities answer the questions posed according to the relevant heuristic structures. So, for example, if the questions are classical, one will likely understand the cause if one understands the solution to the relevant differential equation.

If this review suffices to explain, in a generic way, what a cause is, then perhaps a first step can be taken to understanding non-causation. Among Anglo-American philosophers, one of the most hotly debated topics in metaphysics concerns the status of supervenience. With respect to that debate, the present account certainly holds that there are states that supervene on others. What is of particular interest, however, is that this discussion turns on a kind of non-causation. Given a state A and another B, the state B may be said to supervene on A just in the case that B is not possible without A, but the state of B is not expressible in terms of A. The causative relation between the two states, then, is *partially* unintelligible.

By way of contrast, the Continental discussion on Events broaches *full* unintelligibility. In the sense described last chapter, an Event is marked precisely by the discontinuity of one state N with respect to another M, at least given the initial conditions of M before the radical transformation. If Events occur, and I argue that they do, then this means that some of the ongoings of world-process are unintelligible in the narrow sense. This point stands in favor of an instabilist position on metaphysics, since it argues strongly against the possibility of the stabilist approach. In short, affirmation of non-causative Events is tantamount to support for at least a

weak form of metaphysical incompleteness, since under the present construal it cannot even be said that a full understanding of the universe is possible *in principle*.⁴ Yet, despite the fact that Events in themselves are not intelligible, the conditions for their occurrence, namely the processes of ecosystems, the three heuristic structures, the existence of an inexistent, and the requirement that a non-catastrophic Event can only be said to have occurred if it produces a new conditioned series of cycles makes Events a *situated* non-intelligibility. Thus, the opposite problem, namely a full-scale endorsement of “Hericleitean” flux, is equally avoided.

Two corollary points follow from this account of Events. The first is that while Events are only possible for Badiou with a subject, the present account holds that there are non-subjective Events. While Badiou’s categories of true change are thus guilty of violating the proscription established by Meillassoux’ *Ancestral Problem*, the present account grants even what Meillassoux would call “the absolute” the ability to undergo radical change. Additionally, it is argued that there are catastrophic Events, in which it is the *absence* of ecosystems that marks their occurrence. With respect to existential meaning, then, the present account provides the resources to make sense of tragedy.

(b) Truth and Veracity

Usually truth is considered an epistemological topic rather than a metaphysical one, but since Heidegger’s intertwining of the two domains, truth has emerged under the heading of a metaphysical category as well. Specifically, Heidegger broaches this topic by distinguishing *alētheia* from *orthotēs*, while Badiou retrieves this distinction by proposing a *vérité/véridicité* couplet. As the foregoing suggests multiple modifications to their accounts of Events, my

concern is to address what I perceive to be necessary modifications to be made to the truth/veracity distinction. Additionally, because a significant aspect of a truth process for Badiou just is the process of intervention (wagering on an inexistent, undertaking a process of incorporation, and causing a change in the transcendental index of a world), what I address here at the same time may be considered an elaboration of the hermeneutical account of truth-as-intervention recovered from Ricoeur's work (both early and late).

To begin, I have suggested that there are wholly natural Events, which occur independently of human beings. This is a matter that neither Heidegger nor Badiou addresses, and so it seems to me that the foregoing arguments suggest a modification of the relation of truth to Events.⁵ For Heidegger, as I argued in the first chapter, *alētheia* was just one name for *Ereignis* and for Badiou the occurrence of an Event requires subjective truth-as-intervention. Yet, it simply makes no sense to claim that the happening of merely natural Events constitute a kind of "truth." If truth is what is understood when one comes to a reflective judgment (whether probable or virtually unconditioned), then a basic condition of truth is that there are intelligent beings who do the understanding and judging. Natural Events thus might prove to be the ground for scientific Events, but without at least some reference to social reality, symbolic meaning, or existential meaning they cannot be understood to have a truth dimension. In short, natural Events are neither truthful nor veridical; they simply happen.⁶

At this point, I must make explicit another point that has been latent in the foregoing. Unlike Badiou, I do not think that it is possible to specify in an abstract way what the form of "intervention" is, what the character of wagering, verification and transformation is without addressing the details of each kind of Event. This is why I have specified the kinds of Events in so many different ways, and why one will not find in the present text any account of truth that is

strictly analogous to Badiou's account of forcing and inquiry. Indeed one of the capital issues in *The Emergence Problem* concerns the way in which Badiou encountered difficulties through his insistence that all Events have the same abstract form. To recall the matter, I argued that while a political Event may "force" a truth only through exhaustion and coercion, this point will not hold for scientific inquiry—on pain of turning the success of science into a miracle.

Despite these disagreements, I do maintain that it is possible to specify *something* about "intervention." This is done in two ways. First, I argue that there are three *generic* forms of intervention that allow one to distinguish among natural, catastrophic, and human Events. Only among human Events will one find a structure that is similar to Badiou's intervention, which has a three-fold structure of wagering, verification, and transformation. Yet, even in this last case, the particular way this process occurs is different. Thus, second, I turn now to a sketch of a few of these more specific forms for human Events, as well as the process of mourning, which may be understood as "intervention" for human catastrophic Events.⁷

First, much of the foregoing has been devoted to the examination of epistemic Events. Following the third model for hermeneutics, it may be argued that the emergence of a higher viewpoint in an epistemic practice (such as biology) constitutes an Event, and that because it changes the way that one continues in that practice (whether by changing the aims, methods, or concepts) constitutes a truth. Yet, in opposition to both Heidegger and Badiou, I maintain that it is the veridical that is both the source and completion of such truth, since in such cases one is only ever engaged in the self-correcting process of inquiry. Thus no absolute priority may be accorded to one over the other. A related point in opposition to Badiou's account of forcing and inquiry (or points and organ formation), is that the generic structure of these truths is that of the cycle of inquiry itself, which in this case follows further pertinent questions in relation to an

anomaly, seeks confirmation or disconfirmation for insights, and adjusts those with respect to the relevant established epistemic insights. Thus, just as there is a positive relation between truth and veracity, so too there is a positive relation between the structure of inquiry that sustains “normal” or consensus science, mathematics, and logic, and the structure of inquiry that sustains revolutionary breaks.

Beyond epistemic practices, I now indicate some of the specific accounts of truth-as-intervention for symbolic Events and Events of existential meaning (whether historical or personal). With respect to symbolic Events, one might consider the truth of a great work of art, such as Duchamp’s *Fountain*, to begin with its production. Its significance, the wager of the artist, is localized relative to the inexistence of artistic practice, which practice constitutes the world of the artwork. Yet, its full significance is only to be grasped in the veracity of reflective statements that emerge by critical evaluation. Had no one cared that a urinal was placed in a museum, and had critics not responded, Duchamp’s piece would not have constituted an Evental moment in artistic practice. The relation between artist and critic, then, appears to me to be one of mutual rapprochement rather than strict subordination, whether in its Romantic form (i.e. the artist is the genius to which the critic is subservient), or its post-modern form (i.e. the death of the author is declared).

The matter of personal Events is yet more complicated, so I here provide a suggestive example for illustrative purposes. If I succeed in loving my partner, there is a truth to this Event of personal meaning. The wager one takes is with respect to the inexistence localized in all the practices that specify the existential meaning of one’s *ipseity*. The infinity of details that make up our lives together might constitute the veracity of this Event. Finally, its transformation must

be established through the bringing into existence of new existential possibilities, which may be a family but could be simply the transformation of one's own character.

Finally, the truth of (human) catastrophic Events has a name that I have already broached, namely a trauma. These Events have no positive transformation. Yet, the *working through* of these Events, their mourning may be considered their veracity. While this work may be carried out by philosophers, artists, and historians, I note that at the heart of psychoanalytic treatment is the response to the trauma, the wound, and it looks to me that the continued worth of psychoanalytic responses to (especially cultural) traumas is that this discourse has never overlooked the significance of these happenings.

While these comments are brief, I think they situate the ways in which the third model for phenomenological hermeneutics is able to provide an account of truth that both avoids those problems Badiou and Heidegger encounter, and yet opens new avenues for research.

(c) Space and Time

The metaphysics of space and time continues to haunt contemporary philosophy. The Kantian option in favor of time was taken up wholesale in Heidegger's work as well as Badiou's *Being and Event*. Yet, there have been recent advocates of a spatial reversal, such that space may be understood as prior to time. Among Anglophone philosophers who advocate this position one finds Edward Casey's *Getting Back into Place* and John Sallis numerous works, including *Force of Imagination* and *The Verge of Philosophy*. Following Dussel and Lonergan I have argued, to the contrary, both that space and time are to be understood together, and that there are multiple senses of each. I have maintained, in short, that space and time have six distinct senses:

mathematical, physical, ecosystemic, symbolic, historically existential, and personally existential. The present task is to establish some measure of connection among these. The argument follows a three-part structure. First, I argue for the connection among the symbolic, historically existential, and personally existential senses of space and time. Next, I establish the connection among cosmic senses of space and time. The final portion of the argument consists in establishing a bridge between these two larger groups, between lived or existential space and time and cosmic space and time.

Part A: Existential Space and Time. I have argued that historically existential space and time may broadly be understood as the world-system. By this term I intend a set of intelligibilities that make up social reality and that substantially expand Dussel's notion. The time of this world-system is to be understood through temporality and historicity (chapter 8 §2.b). The space of this world-system is to be understood in terms of dwelling and the differential of spatial distributions of existential possibilities (chapter 8 §4.b). Their coordination, finally, is to be understood historically through our best evidence that articulates the slow changes from hunter-gathers to inter-regional systems of agrarian trade, to the first functioning of a world-wide trade beginning with the Encounter (chapter 8 §3).

Personally existential space and time, for the present purposes, may be understood as follows. The most basic level of personal temporality is that of inner time consciousness. This sense of time both enables a person to have meaningful temporal anticipations, such as the anticipation of a reunion with a loved one, and reckon by means of clocks and other temporal markers (*Innerzeitigkeit*) (chapter 8 §2.b). The spatial aspects of personally existential space are the directions and dimensions of embodiment, the distances of solicitude such as those that

establish the meaningfulness of the proximity or distance of one's child, and public realms (chapter 8 §4.b).

The connection between these two domains of space and time is accomplished by the same processes that make up signifying social reality, save that in place of constitutive rules one has a process of recognition (chapter 8 §1).

The domain of symbolic space and time, finally, concerns the existential significance of the second-order reference one finds to spaces and times. The most salient cases are those found in literature or artistic pieces. Thus, for example, Odysseus travels to the island of Kalypso and this space is one that is existentially meaningful insofar as it informs our own personal sense of dwelling. The same point holds *mutatis mutandis* for time. Yet, there is also a sense of memorial space and time which may also be understood as symbolic. These are the spaces and times of historical occurrences that retain existential value for a culture, such as the Vietnam War memorial in Washington D.C., or the celebrations of independence such as Bastille Day. In both cases, however, these second-order references are ones that supervene on either personally existential or historically existential space and time.

Finally, it must be noted that in a broad way all forms of existential space and time supervene on cosmic space and time. This is the case because all forms of human space and time presuppose the cosmic senses as their lower complex manifolds.

Part B: Cosmic Space and Time. I shall here argue for the intelligible relation among mathematical, physical, and ecosystemic space and time.

To begin, one notes that mathematical space may be something of a difficulty to pin down exactly, since mathematics is an ongoing science. But my wager for the best account of mathematical space is a Riemannian manifold.⁸ Technically a Riemannian manifold (M, g)

consists of a C^∞ -manifold M and a Euclidean inner product g_p or g/p on each of the tangent spaces T_pM of M . I recall that in this case the class C^∞ means that the manifold is infinitely differentiable or *smooth*.⁹ I think this wager is sufficient, though the point is a corrigible one, since with this understanding of space everything from phase spaces to simple one-dimensional real numbered surfaces may be taken as a space.¹⁰

What is important to grasp by this notion is that it is quite broad. Physical space, by contrast, makes up a much narrower selection of these mathematical spaces. The selection of these spaces clearly emerges from the process of scientific experiment and inquiry, which demonstrates what concrete form sensed data take as organized spatiotemporally. What must be noted, however, is that in our current best account of physical space, time is but one more dimension in a four dimensional manifold. Just as a mathematical account of space in no way differentiates one dimension from another as either space or time, so general relativity physics has no means to distinguish space from time absolutely.¹¹

In addition to this sense of space-time, my previous arguments have suggested that if one attends to the ecosystemic account of world process, one will find yet one more bifurcation of space and time understood physically, such that space and time gain the sense of distributions of cycles. Ecosystemic time may be understood as the absolute number of probable occurrences. In a similar way, ecosystemic space may be understood as the distribution of possibilities for probable realization. Such bifurcations do not appear to me to be dangerous or “ugly,” but instead express the multiple intelligibility of the being of our universe. Finally, one should note that ecosystemic space and time supervene on physical space-time, taking it as a lower complex

manifold for its functioning. The resulting multiplicity of senses, then, is not utterly arbitrary or without connection.

Part C: The Link Between Existential and Cosmic Space and Time. I turn now to the principle task at hand: the argument for the connection between cosmic space and time and existential space and time. To be clear, the argument has already been completed in one “direction.” For the existential senses of space and time are taken to supervene on the cosmic senses. My aim here is to demonstrate the intelligibility of connection by moving *from* existential senses *to* cosmic senses. This completes the “return route” of the argument, and thus suffices to establish the autonomy of the existential senses of space and time from the cosmic senses.

The link that I think is sufficient to establish the connection among existential and cosmic senses is one that moves from personal existential senses to an account of special frames of reference. Because all existential senses can be related to the personal sense, and because all cosmic senses can be related to special frames of reference, a connection among all different senses will be established.

The wager that underlies the present argument for the coordination of these two domains is that it is possible to conceive of historical existential space and time in terms of frames of reference. The grounds for the reasonability of this wager are the following. To begin, it seems reasonable to claim that the directions and dimensions of embodied spatiality constitute what may be called a personal frame of reference. Following Husserl’s own account of inner time consciousness, it is equally plausible to claim that these directions and dimensions are lived in a “thick” now of temporal duration. Yet, this personal embodied space and lived time are also coordinated with a public space and time. When one asks “where am I?” or “what time is it?”

one is not satisfied with the answers “here” and “now,” which only answer to embodied space and lived time. There is additionally, then, a public frame of reference for space and time. Public time, which I earlier noted is what Heidegger called *Innerzeitigkeit*, concerns the way by which one reckons according to clocks and calendars. Similarly, public space concerns “the plans of buildings, the network of streets in which [humans] move, the maps of their cities, countries, [and] continents” (*I* 167). These are the regions that I earlier addressed. The key point of connection between cosmic and lived space and time emerges by taking one more step in reflection, namely to special frames of reference (*I* 168).

To understand this third step, a preliminary distinction is necessary. Because this is an argument concerning meaning, the distinction proposed concerns the content of any illocutionary act, which may be either relative or invariant. Following Lonergan, one may say that this content is invariant just in the case that “if, when employed in any place or at any time, they stand for the same proposition” (*I* 164). An example of such illocutionary content is the statement: “ $2 + 2 = 4$.” The illocutionary content is relative “if, when employed in different places or at different times, they stand for different propositions” (*ibid.*). An example of this latter kind of illocutionary content is the statement: “John is standing here now.” The illocutionary content, then, is relative when employing what linguists call “indexicals.” These indexicals make sense relative to one’s personal or public frame of reference. Yet, it is a legitimate question to ask whether these personal frames of reference may be coordinated such that the account of space and time remains invariant. In most scientific utterances this is not a difficulty, since the chemical statement “water is H_2O ” abstracts entirely from spatiotemporal reference. The copula “is” in this case just does not take on any spatiotemporal meaning. In

physics, however, the matter is peculiar, since physical statements just are those that concern space and time. Special reference frames resolve just this matter.

In a special reference frame a basic position, direction and instant are selected, coordinate axes are drawn, and divisions are specified so that they may be denoted in an ordered quadruplet (x, y, z, t) . Clearly such special reference frames may be either mathematical or physical, but they are understood to be physical if they refer to some precise point in space and time, and mathematical if they refer to any point-instant whatever. At this point, I think that Lonergan's argument is sufficient to complete the coordination of lived and cosmic space and time.

He argues that these special frames of reference, which only coordinate public space from an explanatory third-person perspective, provide a general solution to the problem of invariance at the heart of physical statements through a generalized geometry of transformation equations. Any point (x, y, z) in a special frame K may be said to be identical with another point (x', y', z') in the special frame K' , if there are three equations relating x, y, z to x', y', z' respectively, and it may further be shown that these equations hold generally for any point (x, y, z) . In this way transformation equations are obtained, so that a simple substitution of any statement in terms of x, y, z can be transformed into a statement about x', y', z' (*I* 169).

A generalized geometry, one application of which is the Riemannian theory of manifolds, is obtained by considering the inverse operation. In this case one begins with a consideration of transformations and moves to the general theory of geometries by providing the equations with a geometric interpretation. When the contents of mathematical illocutionary acts have the same symbolic form, they have the same meaning. Thus, when that symbolic form is unchanged by a transformation, the meaning remains invariant. The result is that in these generalized geometries "the mathematical expression of the principles and laws of a geometry will be invariant under the

permissible transformations of that geometry” (*I* 170). This last point thus suggests the way in which physical statements remain invariant, despite the fact that they do not abstract from space and time. Yet, because this point only completes the last step in generalizing personal and public reference frames through special reference frames, it also coordinates lived space and time with cosmic (physical) space-time.

This last argument completes my best attempt at establishing the intelligibility that connects lived space and time to cosmic space and time. One will note that this final intelligibility was not produced by recourse to narrative, which is Ricoeur’s approach, because narrative intelligibility does not address the explanatory intelligibility of mathematics and science. There may yet be a way in which narrative may be understood to play a more significant role in this connection, but as with the matter of personal existential meaning, I leave this possibility as a topic for further investigation. What the present account of space and time, along with my notes on causation and truth, does prepare is the necessary argument for my later approach to Emergence. I would thus like to turn to the ontological dimension of metaphysics.

2. Ontology

In my investigation of metaphysics, it was Ricoeur who provided the conceptual framework to reflect on the conclusions of the foregoing chapters. In the present case, it is Lonergan’s focus on heuristic structures conceived in their integral totality that will be my guide. Like Ricoeur, Lonergan was concerned with retrieving classical metaphysical concepts. Yet while Ricoeur’s approach opens the way to a direct discussion such classical concepts as causation, truth, space, time, etc., Lonergan’s opens a domain of new notions that “leap ahead” of contemporary

scientific argument by focusing on the implications of intentional consciousness. My purpose here is not to reproduce what Lonergan has already written, but to outline the character of ontological study in order that I might suggest both its complementarity with metaphysical inquiry as well as its relation to Emergence in the domain of meta-ontology.

The movement to metaphysics from the insights of the sciences (including math and logic) as well as the meaningful symbols of the arts and poetry is a movement that makes explicit the philosophical significance of these insights. There is a parallel movement that occurs when one transitions to ontology. It is a movement from the polymorphic character of consciousness (as a blooming buzzing confusion) to the integration of knowing acts with known contents. In order to spell out what this means, I want to approach it by means of two passes.

In the first pass, three points are to be noted. The first concerns a definition. If being is what is *to be known* through acts of virtually unconditioned affirmative judgment, then it is possible to define proportionate being as that realm of being which is to be known by human experience, intelligent grasp and reasonable affirmation. In short, it is being that is known through the whole process described as cognitional structure (or known probably with probable judgments). The second point concerns an insight about the heuristic structure of proportionate being. In what I call ontology, one's study is directed to *the integral heuristic structure* of proportionate being. While an heuristic notion is an orientation in knowing, and an heuristic structure is an ordered set of heuristic notions, the integral heuristic structure is the ordered set of *all* heuristic notions (I 417). Thus, just as the definition of proportionate being does not define the content of any particular experience, understanding, or judgment, though it defines an ordered set of the types of acts by which the particulars are known, so too the integral heuristic structure concerns not the content but the types of acts by which *all* inquiries into proportionate

being are known. The third point concerns the character of our human conscious activity while inquiring. The movement to ontology makes this activity explicit by bringing it to an articulation of the integral heuristic structure of proportionate being.

Following Lonergan, I now outline the transition in its proper form as a deduction, with a major premise, a set of minor premises, and a set of secondary minor premises. The *major premise* is “the isomorphism that obtains between the structure of knowing and the structure of the known” (I 424). This premise is in fact analytic, since if (1) both the knowing and the known are related sets of acts, then (2) the pattern between those relations must be similar in form to the pattern of relations between the contents of the acts. The *set of primary minor premises* consists of “a series of affirmations of concrete and recurring structures in the knowing of the self-affirming subject” (I 424-5). One of these affirmations is that every knowing of proportionate being consists of a unification of experiencing, understanding, and judging. The “*set secondary minor premises* is supplied by reorientated science and common sense” (I 425). The major and primary minor premises supply the integrating structure, but it is the set of secondary minor premises that supply that which is integrated. The former, then, provided the questions, from the latter are obtained answers. Finally, one reaches the conclusion, which is that the foregoing effect a transition from the latent ontology of the polymorphism of consciousness to the explicit ontology. The reason for this is that all inquiry operates within heuristic structures towards a goal that is isomorphic with those structures (major and primary minor premises), and averting to this feature (by the secondary minor premises) just is to make the integration of these structures explicit.

While Lonergan provides a yet more thorough argument for the adequacy of this transition, I think that these two passes serve both to make explicit just what the movement of

articulation is that ontology requires, and the grounds for it. The questions to which I now turn concern just what this ontology explores. In order to prepare the answer, however, I must first address still one more perplexing point that I have long delayed, namely the status of substance.

(a) *Substance*

“Substance” is a bad word in contemporary philosophy. It seems that for at least a century now both Continental and Anglo-American philosophers have been trying to do without it. Even Thomists tend to hedge their claims on this point.¹² The reasons for this ill-repute are due in no small part to the multiple problems identified concerning the concept. There are, so far as I can tell, three strong objections to the concept.

The first, and simplest, is *parsimony* or that there is simply no need for it. This is the motivation behind Alfred North Whitehead’s rejection of the concept as one find in his monumental *Process and Reality*. His own work in set theory made clear to him that it was perfectly acceptable to understand relations without presupposing some basic or atomic substances of which those relations would be. In the course of the present inquiry, I have also reviewed how category theory provides equally capable means to account for unities and identities without presupposing that those unities or identities are anything more than relations.

The second objection is Heidegger’s critique of ontotheology, which is perhaps the most complex and intricate to disentangle.¹³ Now the present approach cannot simply *assume* Heidegger’s critique of ontotheology, even if it may legitimately take up his *aim* as directing research. What grounds are there, then, to be bothered by substance or being defined in terms of presence? Of the multiple dimensions of Heidegger’s critique of ontotheology, that which

concerns the present inquiry turns on the way in which substance privileges presence in an unfounded way, that in Aristotle (leaving scholarly controversy to the side) *ousia* means *parousia* at base.¹⁴ Because Aristotle's metaphysical question, what is *on hē on?*, quickly turns into the question of what is *on hē ousia*, Heidegger argues that he ends up reducing metaphysical inquiry to a question about substance, such that this substance is articulated by uncritically accepting the present as its determination. In the foregoing account I have argued that beyond the time of general relativity physics, there is also the time of ecosystems—and in both cases spatial considerations form part of the intelligibility of these concepts. The result is that I think there is some warrant to be concerned by Heidegger's critique of substance. The notion that there is some undecomposable stuff, which is determined primarily in the present (and without considerations of space), and which would serve as the primary determination of being would appear to be a problematic way of thinking about the reality of the world. Considered in at least this way, then, it remains advisable to avoid including a characterization of substance in the present metaphysical account.

The third objection is that of *structural stasis*, which is what one often finds among post-structuralist thinkers such as Deleuze. The argument that one finds in *Difference and Repetition* is that in order to remain open to the possibility of radical change relations must not be subordinated to the relata as one finds Aristotle's account of substance. Stated in another way, difference must not be made subordinate to the same, or else one will not have the conceptual resources to affirm the radical difference that characterizes Events.¹⁵ Deleuze, like Badiou, thus has no objection to the claim that there are unities or sameness, but only objects to the claim that these unities are prior (*ordo essendi*) to relations.

Despite these objections, the present account in fact turns on a commitment to the existence of “things.” In *Insight* Lonergan argues that world-process, which is roughly equivalent to what I have presented, must include an account of “things,” and I agree with this point. In fact, he (rightly) argues that it simply is not possible to make sense of the generalized notion of emergent probability without things (*I* 284-7). This commitment to the existence of “things,” however, is not to say that I disagree with the above three objections. Rather that I think an account of “things” is compatible with all of these objections to the character of substance. For it is precisely because of this compatibility that I have chosen to follow Lonergan’s selection of the Anglo-Saxon word “thing” over the Latin translation of the Greek “*hypokeimenon*.”¹⁶

In order to make my case that supporting an account of “things” is compatible with these three critiques of substance, I begin with a preliminary statement of what a thing is. “Things” are existing, concrete, intelligible unity-identity-wholes. By “are” in this statement I merely recall the point from chapter five that being is what is to be known through virtually unconditioned affirmation of intelligibilities understood by their respective insights. The new matter introduced here is that there are two types of insights. The type addressed so far is what Lonergan terms an insight into “conjugates.” In common sense experience, for example, one may note that there is a correlation between heat as it is felt and the feeling of heat. With respect to an explanatory account of experience, for example, one may make an insight into the correlations of masses. In order to understand these relations, one must have an insight into the conjugate terms of those relations. Yet, there are also insights into intelligible unity-identity-wholes and these are insights into “things” (*I* 271). A common sense example might be that I come to recognize that my house pet Socrates is a cat. In this case, I come to understand that

there is a unity among the totality of data, such as color, shape, odor, etc. as they appear to me that remains the same over changes among those data. A pertinent example of an explanatory thing is an ecosystem, in which both the levels of energy and kinds of matter change, but the cycles that sustain the ecosystem remain in place through these changes.

Three qualifications will likely make the general notion of a thing more comprehensible. To begin, I note that things *exist*. Thing insights (as opposed to conjugate insights) grasp an intelligible unity, but they do not grasp that the thing exists. One could, after all, have insights into chimerical things. It is through a judgment of a thing's existence that one comes to affirm what has been understood as existing. Thus, a thing is both understood and affirmed. A second qualification concerns the character of things as *concrete*. Beyond being understood as a unity-identity-whole, a thing is initially grasped in data as an individual (I 275). This is to say that what one grasps is the unity of the *concrete* individual data, in the totality of their aspects—as an identity in their manifold as Husserl might say. Finally, things possess properties and are subject to laws and probabilities. Thus, a thing is “extended” and “permanent” in the sense that it unifies data that are spatially and temporally distinct, though not as a unity in a particular form of time or space. Furthermore, to the extent that the data it unifies are understood *through laws*, “conjugates become its properties, and probabilities [and development] govern its changes” (I 276).

Turning now to address each of the critiques of substance, I argue first that the present account of “things” is not subject to the critique of *parsimony*. Insights and affirmations of things occur precisely in order to account for change. As Lonergan writes: “without concrete and intelligible unities there is nothing to change, for change is neither the substitution of one datum for another nor the replacement of one concept by another” (I 461). One of the driving

motivations behind the claim that things exist is to account for change. There must be something with respect to which one understands change, and that intelligibility just is a thing.

Concerning the critique of *ontotheology*—especially concerning the critique of surreptitiously importing an account of time without examining it, I think the foregoing makes clear that things are not insights into any sort of time (or space). To begin, I have already pluralized an account of time well beyond Heidegger’s own concerns, and following Ricoeur I have suggested that his senses of ontological time as temporality, historicity, and within-time-ness are only dimensions of time to be understood in relation to cosmological accounts of time. Heidegger’s concern that Aristotelian *parousia* contributes to the oblivion of *die Sache* of his thought (e.g. *Ereignis*) cannot be maintained strictly anymore given *The Regression Problem*. Yet, even beyond these points, insights in to unity-identity-wholes are not insights into specific forms of time or place. These insights abstract from that kind of intelligibility, just as the copula “is” in a chemical statement abstracts from spatio-temporal intelligibilities.

Finally, concerning the critique of *structural stasis*, my response is two-fold. First, I draw attention to the fact that “things” are not opposed to “relations,” so that one cannot be concerned with the subordination of one to the other as Deleuze was concerned with the subordination of relations to their terms. “Things” are necessary to understand change, *not* undecomposable units, or philosophical atoms, that exist prior to relations (*ordo essendi*). Next, I note that it is only by affirming the existence of things that one is able to understand ecosystemic world-*process*, which is precisely the kind of world-process that is open to Evental change. Far from closing down the possibility of radically discontinuous change, then, things are necessary to make sense of it.¹⁷

I want to let this account of things constitute the relevant discussion on sameness or identity that is required by the foregoing account of the world as a conditioned series of ecosystems. “Things” are the general *notion* of unities-identity-wholes understood (in the first instance at least) in their concrete individuality. They are required to make sense of change, but are not in principle opposed to relations. Neither are they defined in terms of any form of space or time. Finally, there is no reason to suppose that things are somehow opposed to relations.

(b) Potency, Form, and Act

The detour through things was necessary not only to complete the foregoing account of ecosystems, but also to make sense of the ontological notions that Lonergan develops by reflecting on the character of cognitional structure. While his retrieval does not retain Aristotle’s account of the categories, he does retain a number of his more critical distinctions, which are fully articulated only with an account of things. The heart of this retrieval concerns the notions: potency, form, and act. Yet, because in chapter six I was concerned with possibility and actuality, I want to begin the present account of these notions by addressing why that discussion was properly a metaphysical and not an ontological discussion.

The distinctions among possibility, probability and actuality concern the way in which world process occurs, as understood through an account of the four heuristic structures, namely classical, statistical, genetic and dialectical. The result, I argued, is that world process is the probable realization of the possible seriation of actual ecosystems (6.6b). This account, however, turns on the adequacy of the description of the heuristic structures used to investigate science, mathematics, logic, and even social reality. While these structures are continuous with

cognitional structure, which itself is understood in terms of an heuristic circle, they are in no way *derived* from it. The result is that these results are properly metaphysical. The account of ontology, by contrast, follows strictly from the adequacy of the description of cognitional structure, which is taken to characterize all inquiring, whether scientific or otherwise. There is, then, a kind of terminological equivocation present here in the uses of potency, possibility, actuality, and probability, but I think that the context of their use should be sufficient to determine which sense is meant.¹⁸

Turning now to Lonergan's arguments concerning ontology, an initial definition proves helpful. Ontology is an inquiry concerning the integral heuristic structure of proportionate being, that is of all heuristic notions that are to be known through experiencing, understanding, and judging, what it attempts to understand is *not* what is known now given an honest review of the best epistemic practices available (which is metaphysics), but what can be said now about the character of the known when (if) everything of proportionate being is understood. In short, it "asks what can be known here and now of that future explanation" (I 456).

But it has already been established that in coming to know something, one's path of inquiry follows the course of experiencing, understanding and judging. Thus, in what is to be known it will be the case that something corresponds to each of these distinct aspects of knowing. Let "potency," "form," and "act" correspond to each of those levels. Lonergan defines each of these as follows:

'Potency' denotes the component of proportionate being to be known in fully explanatory knowledge by an intellectually patterned experience of the empirical residue.

‘Form’ denotes the component of proportionate being to be known, not by understanding names of things ... but by understanding them fully in their relations to one another.

‘Act’ denotes the component of proportionate being to be known by uttering the virtually unconditioned yes of reasonable affirmation (*I* 457).

Because cognitional structure constitutes a unity, so too do potency, form, and act. Yet it is equally the case, then, that their contents also form a unity. So far as the account of cognitional structure is accurate, then, all scientific, mathematical, and logical inquiry will be explained in terms of these three aspects.

Beyond these three aspects, however, Lonergan introduces a distinction between conjugate and central potency, form, and act. The strategy is to introduce this distinction first with respect to form, and then, because potency, form, and act form a unity, draw the distinction out to the other two aspects of what is to be known of proportionate being. To begin Lonergan argues that there are two heuristic principles, which when combined require that one acknowledge the existence of conjugate forms. These two principles are (1) that similars are to be understood similarly, and (2) that the similarities relevant to explanation lie not in the relations of things to us but in the relations of things to each other (*I* 460). The concern of ontology, then, is with proportionate being as constituted by explanatory relations. As Lonergan shows, our commonsense, descriptive understanding of things as related to us can be situated in the broader and enriched context of explanatory relations of all things to one another. In such a case, one comes to understand an explanatory relation. Let them be named explanatory conjugates. Since whatever one understands has been designated a form, it follows that there are

conjugate forms. And since potency, form, and act are a unity, there must be conjugate potencies, conjugate forms, and conjugate acts. Yet, as was argued in the discussion of things, in order to make insights into change, there must be insights into unity-identity-wholes. Call those central forms, and by the same line of reasoning, extend this new domain to include central potency and central act as well.

While Lonergan outlines further points that can be made ontologically, including an account of explanatory genera and species, I think these six notions make up the heart of the ontological statement on being. They are important since they constitute a fundamental retrieval of Aristotle's own most basic distinction: that between potency and act. Yet, I have at the same time noted that this potency is to be distinguished from metaphysical possibility and probability. Likewise, this account of actuality is to be distinguished from metaphysical actuality. I want to turn now to a Meta-Ontological reflection, which will introduce, in the form of Emergence, what is to my mind the most profound sense of potentiality or possibility.

3. Meta-Ontology

The dimension of Metaphysics I have called metaphysical investigation follows the path opened by Ricoeur's work in hermeneutics. It both engages in the history of philosophical metaphysics and the findings of contemporary science to determine *now* what the character of the world is—in a corrigible way. This dimension, while not the focus of Lonergan's work, is at least implicit in his account, since he draws on relevant scientific findings to make a number of his points. The dimension I have called ontology follows the path opened by Lonergan's account of cognitional structure and its implications for the structures of proportionate being. It hopes to

determine now what can be said of the character of the universe as it will be known when everything is known. While not implicit in Ricoeur's work, it is complementary to his reworking of the hermeneutic circle as based in the correlation between the question and the questioned. Both domains are opened by what I have called metaphorical "movements" of articulation. Poets, scientists, logicians and others do not ask after the relevance of their insights for metaphysical thought, so that it is the task of the philosopher to articulate this relevance. Similarly, ontology remains implicit in every human inquiry, but it is the job of the philosopher to articulate and make this character of the to be known explicit.

What I call the dimension of meta-ontological inquiry is complementary to both the metaphysical and the ontological. It concerns the possibility of radically discontinuous change for both the other dimensions, yet it is not distinct in content from them. My goal here is to retrieve Heidegger's account of *Ereignis* in a way that is consistent with the Cantorian Revolution. In order to achieve this goal, I plan first to address just what kind of intelligibility is sought by the present inquiry. Next, I turn to establish the nomenclature for the kinds of Emergence under discussion. At this point no judgments will be made even concerning the coherence of these terms. My designation of "ontological Emergence," for example, could as yet be as incoherent as a "square-circle." I note, however, that I shall make use of examples to clarify points under discussion. It is in part (c), finally, that I make my arguments for the *possibility* of Emergence.

(a) *Complementarity of Metaphysics and Ontology*

Because meta-ontological inquiry concerns the contents of both metaphysics and ontology, it will be helpful to begin by articulating the complementarity of these two dimensions of Metaphysical inquiry.

First, it must be acknowledged that the domains are distinct. While metaphysics concerns a philosophically significant articulation of epistemic propositions, symbolic pronouncements, and existential concerns as they stand currently, ontology concerns what can be understood now of what will be understood when everything is understood, given the character of cognitional structure. Yet, not only are the matters they ask after different in kind, the conclusions they come to are also distinct. For even given a full account of the philosophically significant aspects of epistemic and symbolic reality, it would be impossible to derive from this knowledge the character of the universe as it will have been understood when all is understood. Similarly, even given Lonergan's full account of ontology, it is not possible to derive what is known *now* in full detail. What is understood by each of these dimensions of Metaphysical inquiry, then, is distinct.

Second, the intelligibilities that each provides advances what is understood by the other. Since what one dimension understands is distinct from the other, the intelligibilities that each yields cannot *directly* compete with that of the other. One cannot, in short, embark on metaphysical inquiry and hope to change ontological conclusions, or the reverse.

Third, there is an *indirect* influence of the metaphysical onto ontological dimensions of inquiry. To begin, it is acknowledged that ontological inquiry is a *conditioned* investigation. Its conditions, or wagers, are those that make up the (correct) description of cognitional structure. It does not appear to me that any advances in the sciences will directly affect cognitional structure, since that description is produced solely by reflection on first-person consciousness.

Nevertheless, *philosophy* is an epistemic practice, and as such could yield a more accurate description than what has been provided here. Should that account revise in a revolutionary way what the account of cognitional structure is, then it would occasion grounds for a revision of the foregoing account of potency, form, and act.

Fourth, there is an *indirect* influence of the ontological onto metaphysical dimensions of inquiry. There are multiple conditions for metaphysical inquiry, not the least of which is the selection of pertinent conditions (e.g. poetry, painting, science, mathematics, etc.). While the history philosophical inquiry dictates which of these are pertinent, individual insight also directs thought on these matters. Still, it may be the case that individual insight might take its cue from knowledge of the heuristic structures of ontology. Knowing which structures ontology considers pertinent might raise questions about the adequacy of this articulation, and thus lead one to ask after particular domains of research or particular symbolic domains as pertinent to philosophical inquiry.

Thus, I understand metaphysical and ontological investigations to be complementary ones. While they cannot directly contradict the results of the other, both provide grounds for shifting the direction of thought with regards to the other. I now turn to a more specific account of what appear to me to be the conceivable types of Emergence, at least given the subject matter under investigation.

(b) Types of Emergence

The notion of Emergence is in some respects quite simple, since it is only a special type of Event. Throughout this work it has been maintained that a key feature of Events is radically

discontinuous change, and in keeping with this notion Emergence is only the radical discontinuous change of radical discontinuous change. It is precisely just such a notion to which Badiou remains closed, but to which Heidegger was averting with his own account of *Ereignis*. Stated in the present way, however, this notion is generic. Yet, Emergence only ever occurs as an Event concretely. It is a change of *this* form of Event. In principle, there may thus be indefinitely many forms of Emergence. In the concrete, the matter is quite different, since, for example, the notion of personal Emergence is a matter that has not been prepared in the present work. Thus, so far as the foregoing account has prepared, it is possible to address three cases of Emergence.

The first of these may be considered “purely physical Emergence.” As an intuition pump for what I have in mind, suppose that it suddenly it turned out to be necessary to add the cosmological constant to Einstein’s field equations. If the matter were verified as a physical development, rather than a (epistemically) scientific one, this would clearly change the metaphysical character of our universe significantly. Indeed, one wonders what would remain of our core physical accounts of the universe’s beginning, such as the Big Bang. Yet, I leave this case as an intuition pump that clarifies the intended meaning of “purely physical Emergence.” For in this case the heuristic structures outlined over the course of the past several chapters would no longer make sense of that universe, so that the Event itself would qualify as an Emergent one.

The second of these is rather more strictly philosophical in character, namely “metaphysical Emergence.” This kind of Emergence could of course happen if the first kind occurred, for in that case the metaphysical account of the heuristic structures, and especially the account of ecosystems which follows from them, would need to be changed. Yet there are other

ways one could think of this process. First, if the present account is wrong in some significant way, then one could make the case that such Evental revision constituted metaphysical Emergence. In another way, one might find that there are developments in epistemic practices or in social reality that show the present account to be outdated. As an example of such a development in epistemic practice, one may consider the development of study in non-linear dynamics and chaos theory. I do not think this kind of development requires a new heuristic structure, but if one were show that it did, then the existence of a new form of world-process would change rather significantly the present account of finality.

The third kind is “ontological Emergence.” Such would be the case if the foregoing account of cognitional structure underwent revolutionary revision. Because some new account of cognitional structure would follow, it would be the case that all the accounts of change described in terms of potency, form, and act (which would include finality) would also change.

Having now outlined what types of Emergence the present inquiry has provided grounds for understanding, I now to turn to the arguments that make sense of what these names designate by establishing their conceptual possibility.

(c) Conditions for Emergence

I begin by noting two general conditions for the possibility of Emergence, especially metaphysical and ontological Emergence. It is to be understood that *all* discussion of Events is discussion conducted by making use of metaphysical concepts and notions. Since the account of Events I have developed makes use of the heuristic structures, and the four forms of world-process, it is a metaphysical account (though nothing precludes one from illuminating this

account by the ontological notions of potency, form, and act as Lonergan does). Because Emergence is nothing other than a special form of Event, this means that in broaching the possibility of ontological Emergence I am attempting to make sense of one domain of inquiry by another. The condition for the possibility of this meta-ontological endeavor, then, rests on two points: the indirect influence of metaphysics on ontology (outlined in 3.a above) and the fact that the self-correcting process of cognitional structure itself has the character of an ecosystem, which was outlined above (chapter 7 §6).

Now the rather more particular cases must be addressed. First, is it possible that there could be purely physical Emergence? Though the matter would likely be catastrophic for humans (indeed it is difficult to imagine that it would not be), it seems entirely possible. Certain scientists have even speculated that the laws of the universe *evolve*. The motivations for their position concern the inadequacy of the current multiverse account of physical cosmology, and the adequacy of their solution is something that scientists will have to examine for themselves.¹⁹ Yet, this does appear to be a possibility.

Turning now to the more strictly philosophical questions: could there be metaphysical or ontological Events, which, because of the very character of the inquiries would constitute Emergent Events? I believe that the answer to both is affirmative, and on this score I depart from Lonergan somewhat.²⁰ With respect to Events in metaphysics, it seems entirely plausible to me that new heuristic structures could be discovered, and this would require a re-articulation of the world as a conditioned series of ecosystems. In such a case, it is entirely plausible that some notion, such as finality, might change entirely, and that would constitute a change in the very way that the changing of the world is understood. As a result, such development would constitute an Emergent Event.

This conclusion may be understood to stand in tension with Lonergan's own arguments, so I pause to address a relevant objection to the foregoing conclusion. In both *Insight* and a later essay entitled "The Ongoing Genesis of Methods" Lonergan appears to argue that no metaphysical Emergence is impossible. He argues that the four heuristic structures, namely classical, statistical, developmental and dialectical, are grounded in the account of cognitional structure.²¹ Two points follow as immediate consequences. First, they could thus not undergo radical revision unless cognitional structure did. Second, it is the character of cognitional structure itself that dictates that there could be only four such methods (I 509).

My response is double. First, I distinguish between metaphysical investigations and ontological ones, so that arguments concerning an Evental change in generalized empirical method or cognitional structure are to be treated in the case of ontological Emergence. Second, with respect to the argument that it is cognitional structure itself that dictates these four heuristic structures, what I believe Lonergan has in fact shown is that these structures may be seen to be complementary to the account of cognitional structure. He argues:

The anticipation of a constant system to be discovered grounds the classical method; the anticipation of an intelligibly related sequence of systems grounds [developmental] method; the anticipation that data will not conform to system grounds statistical method; and the anticipation that the relations between the successive stages of changing system will not be directly intelligible grounds dialectical method (I 509).

What these points do not show is that only those heuristic structures are available, that only those sorts of anticipations are possible, and without such an argument one cannot argue that Evental changes in the metaphysics of world process is impossible. Beyond this point, even with respect to the account of these very heuristic structures, it appears to me that Evental changes could occur, since it is always possible that our *best accounts of them* are wrong in some significant way. This would not require a change in the anticipations themselves, only our characterization of such anticipations.

With respect to the harder question of ontological Emergence, I begin with two notes. First, the distinction between metaphysics and ontology is my own, and is not to be found in Lonergan's work. These terminological differences do not make posing the question a straightforward matter. Thus, second, I rephrase the question as follows: could there be a development in the account of cognitional structure that was a radically discontinuous change? What this amounts to asking is a question about the veracity of the present account: is it only probably true and not virtually unconditioned? If it were virtually unconditioned, then there would be no way in which any further development in the account of cognitional structure could be radical, but if it were only probably true, then there could be radically discontinuous development.

To answer this question it must be recalled that "probably true" has two meanings. First, a matter can be probably true if, as one continues in an inquiry one is aware of pertinent but unanswered questions. Thus, a scientist might claim that a law is probably true, but recognize that there are pertinent anomalies in the experiments used to establish that law. Second, a matter may be "probably true" based solely on the remote criteria for a virtually unconditioned judgment. These remote criteria are those that make up the framework for the present inquiry.

For example, in mathematics, it is a virtually unconditioned judgment that for systems such as the *Principia Mathematica* it is always possible to produce an undecidable proposition under the condition that one assumes its consistency. In such a case, one might answer all pertinent questions, but form a “probably true” judgment only in the sense that the remote criteria are judged to be probably true. Gödel’s results only hold, however, assuming that contradictions are undesirable. Should Graham Priest’s (realist) thesis about dialetheism prove true, then, Gödel’s result would have to be understood in a restricted light.

I do in fact think that because of the number of promissory notes I have had to sign in the course of the present investigation, that the present essay’s results are only to be considered probably true in the first sense. This still means, however, that I think it fares better than any of its competitors. Still, with respect to ontological Emergence, the more pertinent case is to be made in dialogue with one of Lonergan’s own arguments.

In *Insight* Lonergan explicitly argues that there can be no revolutions in what I am calling ontology. Such would be the case, he notes, only if a higher viewpoint were reached. Reaching a higher viewpoint, however, requires altering the content of the primitive terms or relations.

Moreover, a higher viewpoint can alter the content of primitive terms and relations only if that content is some determinate object of thought or affirmation. The Aristotelian, the Galilean, the Newtonian, and the Einsteinian accounts of the free fall of heavy bodies are all open to revision, for all are determinate contents. On the other hand, a merely heuristic account is not open to revision. One cannot revise the notion that the nature of a free fall is what is to be known when the freefall is understood correctly; for it is that heuristic notion that is both

antecedent to each determinate account and, as well, subsequent to each and the principle of the revision of each (*I* 419).

Because ontology is an heuristic investigation, therefore it seems that it would not be open to the kind of revision that would constitute an Event.

Despite my numerous other agreements with Lonergan, on this matter I must depart. It is always the case that *my account of* the heuristic notion could be inaccurate, and that is just what is at stake in saying that ontology is open to Evental change. Furthermore, one must understand that higher viewpoints can alter the determinate meaning of primitive terms and relations in a number of ways. It need not be the case that it is shown that no one has insights or has experiences in order for such an Event in ontology to occur. It could be that these notions find a fuller articulation through another account. For example, one might develop the implications of non-classical logic for reflective judgment. In some paraconsistent logics (e.g. LP and FDE) it is the case that *modus ponens* fails.²² Lonergan's best account of a reflective judgment turns on an example of a basic logical inference using *modus ponens*, and thus assumes a logic in which it does not fail. A fuller exploration of non-classical logics *could*, then, lead to a considerable broadening of the account of reflective judgment. The result would be a change in what is meant by 'act' as understood ontologically, and would thus constitute not only a case of an ontological Event, but of ontological Emergence, since the very categories for ontological change would have undergone a radically discontinuous change.

I provide this last example only as an intuition pump. My point is that it appears to me to be entirely reasonable to hold that such ontological Events *could* occur. Because Emergence concerns the change of the categories of change, it is clearly self-contradictory to claim that one

has necessary grounds for Emergence. The best one can do is understand this notion of inverse insights, and present the evidence one has that the present account is unfinished and therefore open to the possibility of Emergence—which, one should notice, is the third and most profound sense of possibility/potentiality. Before I move to a summary account of Events, however, I want to address two final points.

First, there are no strictly meta-ontological Events. This is because meta-ontology only inquires into the radically discontinuous changes of metaphysics and ontology. For an Event to occur in either case, then, is *already* for an Event to occur meta-ontologically. Just as Emergence is only a kind of Event, so any form of Emergence is already a meta-ontological Event.

Second, in answer to concerns of self-reflexive consistency, I want to note two items. First, while the present position is only probably true, one must keep in mind that it is nevertheless truly probable. On this construal, one is not trapped within one's consciousness, community, or historical period, but truly reaches what is, with the caveat that how one accounts for what is remains subject to revision that will take up what was best in what one already affirms. Second, Lonergan is clear at various points that the concerns of total skepticism are paradoxical. To put a twist on Wittgenstein's famous phrase: doubt is a second order operation (*I* 575). To doubt something presupposes not simply an understanding of the use of terms, but more importantly (and this is why one is a phenomenologist after all), an intelligibility that one may affirm or deny apart from their linguistic expression.

4. Pluralizing the Event

The whole of the present chapter is conducted under the aegis of a new kind of analogical Metaphysics. This approach is not analogical in the sense that it establishes a primary analogue as *ens mobile* and then argues by an argument of proper proportionality to some account of *esse*.²³ It is analogical in the sense that it supports a multiplicity of means for inquiring about being, but understands the fundamental sense of being as that which one is able to understand in a reflective judgment. In each case the way in which being is approached is articulated by a “movement” or series of steps that enable one to ask about the character of being under specific and corrigible constraints. Beyond this point, I have also argued that it is permissible to inquire about ontological matters with metaphysical presuppositions in order to ask after the possibility of ontological Emergence. The foregoing, then, provides the grounds to establish a résumé of the kinds of Events, including Emergence, which to my mind constitute the best contemporary retrieval of Platonic excess or Heideggerian *Ereignis*.

Because so many chapters have passed since I first provided an account of Heideggerian *Ereignis*, in order to show how my proposal is a recovery of his thought, I now situate again his statements on *Ereignis* with a brief review of his account in his 1938 *Contributions to Philosophy*. In this work, Heidegger makes clear that to his mind the first beginning, which comes to be called metaphysics, occurs through the Platonic determination of being as *idea*, which establishes the fundamental distinction between the intelligible and the sensible (§§109-110). This epoch, he argues, finds its culmination in Nietzsche’s thought when the distinction between the intelligible and sensible is reversed (§89). The first beginning, nevertheless, is not a simple beginning, since it was already a transformation of truth as *alētheia* into *idea* (§91). The

first beginning is thus *first* only in relation to the other beginning that the *Contributions to Philosophy* are meant to prepare.²⁴ This other beginning “overcomes” metaphysics by twisting-free from it, which is to say that it is a return to the first beginning so as to think in it what remains unthought. “*The first beginning*,” writes Heidegger, “experiences and posits the *truth of beings*, without inquiring into truth as such” (§91). What is decisive is a regression from the intelligible-sensible framework that governs metaphysics, that governs the determination of *alētheia* as *idea*, to what remained concealed within that framework.

In the first chapter of the present work, I outlined the character of this regression to the *Lichtung*, which is the term Heidegger uses in his essay “The End of Philosophy and the Task of Thinking.” In the *Contributions to Philosophy* he writes that the “work of thinking in the epoch of the crossing can only be and must be a *passage* in both senses of the word: a going and a way at the same time—thus a way that itself goes (§40). The point for Heidegger is not that he is preparing the way to another stage in philosophical thought as John the Baptist prepared the way for Jesus Christ. For Heidegger, the passage to *Ereignis* is the passing, the crossing, the happening of metaphysical thought itself. “Those who are to come,” Heidegger writes “take over and preserve belongingness to *Ereignis* and its turning [*Kehre*], a belongingness that has been awakened by the call. They come thus to stand before the hints of the *last god*” (§39). To belong to *Ereignis* is to recognize the finitization, the revealing and concealing, that structures the meaningfulness of an epoch—its Being (“*Seyn*” in old German spelling Heidegger uses). To heed the call of *Ereignis*, then, is to remain open to the decision of *Seyn*, because its covering and uncovering is something that exists resolutely beyond the human—it constitutes the very “Da” of Da-sein. Heideggerian *Ereignis*, unlike Badiouian events, thus remain open to the possibility of the radical change of our categories for radical change.

Such is the finite recovery of Platonic excess in my estimation. It occurs by way of regression, by engaging on a path of inquiry beneath the discourses of the sciences, but it cannot make the return route. In order to produce a retrieval of this possibility of thought after the Cantorian Revolution, my suggestion has been that the correlation between the question and the questioned, which is what constituted the hermeneutic circle in §2 of *Being and Time*, could be reappropriated. In short, the wager of the present work has been that Heidegger too quickly abandoned his own phenomenological insights. Following Ricoeur, who appears to be the first to make full use of this correlation, I have followed the path of infinite hermeneutics. Following Lonergan, I have argued that infinite hermeneutics should make use of cognitional structure as a third model for reflective thought. The immediate benefit of adopting this model is that it provides the warrant for an heuristic articulation of world-process, and can make way for recovery of existential meaning. It is thus capable of providing a way by which a long road through the “hard” sciences is intelligible.

In order to meet Badiou’s rigorous demands for Evental thought, I have argued that world-process may be understood as a conditioned series of events, which, because of their complex relations, may be understood to have a probability for the emergence of new conditioned cycles of events. The emergence of a new conditioned series of cycles, which is just the same thing as saying the emergence of a new ecosystem or “world,” is an Event. Because Events emerge from an in-existent in a world, they are a situated form of non-causality. Because Events may occur in any meaningful world, and because all forms of space and time are intelligibly connected, all world-process is characterized by finality, barring catastrophic regress. Every Event that is positive must establish a new ecosystem by which it may be recognized, and any catastrophic Event is characterized by the noted lack of possibilities. It is the impossibility

of the recovery of these possibilities, and unforeseeability of their emergence that characterizes our fragile existence. Events may be metaphysical in character, as is the case with the emergence of a new star, epistemic in character, as is the case with scientific revolutions, or both, as is the case with Events of social reality (especially political and historical). Finally an Event may be said to be Emergent just in the case that it constitutes a radically discontinuous change in the categories of radically discontinuous change. Here one finds the possibility of physical Emergence, as might be the case with the evolution of physical laws, metaphysical Emergence, as might be the case with the development of a new heuristic structure, and even ontological Emergence, as might occur if the present account of cognitional structure is Eventually modified.

One can, of course, never provide a proof for the necessity of Emergence, since as a kind of Event it is unpredictable, and as the kind of Event that would specifically abrogate one's categories for change, one *in principle* only has one's own best account to address its possibility, which must of necessity be lacking.²⁵ One may only point to the numerous gaps in one's own argument—gaps that any honest philosopher will always (in a practical sense) find present in her account. In my own case, I need only note that I have signed away a fair number of promissory notes. As world-process is a fragile matter, so too is philosophical reflection on it. I think, then, that this statement on Emergence might constitute a best present account of the beyond of being in the wake of the Cantorian Revolution. It thus constitutes one of the critical facets of the trans-modern condition, which is the statement of wisdom I have been laboring to produce in the present work. It is to a full account of this statement that I would like to turn in the concluding résumé of this work.

10

The Transmodern Condition

Philosophy is a practice that appears to be dedicated to an impossible task. It must make an assessment of our knowledge, our artistic productions, our political action, our history, our love, our philosophy, and even more, yet it can never adequately understand them all. It does not appear to be the case that anyone could ever learn enough or address enough through some finite series of investigations to produce a definitive statement on the existential significance of all human practices, or even all epistemic practices. Furthermore, even if collaborative work managed to coordinate every account of each human practice, such work would still fail to anticipate the consequences of possible Evental changes in those practices. Ignorance on some matter thus appears to be inevitable.

By closing the present investigation with a statement on human historical conscious, with a vision of the meaning and the character of the universe, I may appear to be attempting something foolhardy, even dangerous. I have already admitted that the present investigation has signed away a number of promissory notes, especially those concerning the character of human subjectivity. The epistemic status of the present investigation's conclusions thus remains probably true in the narrow sense. What warrant is there for extrapolating any view of the cosmos or human meaning from such provisional results? How can anyone undertake the task I am suggesting here without hubris and above all the quality that Socrates always called "*amathia*," which was his technical term for an ignorance of one's own ignorance?

There is really only one way to address this problem, which is to accept it as one of the constitutive conditions of philosophy. Indeed, even those who thought they had grasped the

existential significance of all the practices of their time were mistaken at least insofar as they did not *also* anticipate all future Events in those practices. Surveying the history of philosophical studies, one finds that rather than produce statements of *sōphia*, what philosophers instead have done is extrapolate from what they wagered were the most important matters of correctness to pronounce on a world-view, on a statement of what it all means in an existentially relevant way, on what the Greeks called a “*kosmos*.”

Philosophy lives in the tension between correctness and vision, and mistakes at either pole constitute philosophic mistakes. Those who are best at running through the ends of this arduous course are those we term great philosophers.

The name for the *kosmos* that I articulate here is one that I adapt from Dussel’s work by expanding its significance; it is what I have in passing been calling the transmodern condition. I set out its character in five points.

1. The Infinitization of Reason

That human cognition has been held to be finite is a matter that dates back at least to Kant. In his thought one finds that human finitude is not defined in opposition to the infinite being of God’s existence directly. Instead it concerns primarily the way in which human cognition is receptive, the fact that our intuition does not produce its objects as an infinite intuition would, but must receive them from some other source.

This basic thesis on human finitude is extended in two further, but significant ways. The first extension is to the character of the transcendental imagination itself. Following the B deduction, the purpose of the transcendental imagination is to mediate between the synthesis of

apprehension and the intellectual synthesis in order to allow for their relation within a single cognition, a single “I think,” which thus makes their representations possible in me. Such a role would not be necessary if human cognition had a productive rather than a receptive intuition, and so it follows that the very occasion for the transcendental imagination is the finitude of human cognition. Second, in discussing the way in which the noumenon is a necessary object of cognition, since one cannot but think of that of which something is an appearance when one thinks of a phenomenon, Kant introduces the term “problematical concept.” Understood properly, one cannot say that the noumenon exists, since even existence is a category of thought. Rather, one must understand that the “noumenon” marks the threshold or limit of what can be thought, it can only be understood negatively as that which one cannot think under any of the categories. A problematical concept in Kant’s thinking, then, has the structure of an included exclusion: the noumenon is included in the realm of what is thinkable *as* precisely what is excluded. Of course there would be no need for problematical concepts if human intuition were productive rather than receptive, for in that case one would simply intuit the noumenon in a full and positive sense, rather than negatively as that which one cannot think by means of the categories of the understanding.

It is especially this last sense of finitude that has proven most important for philosophical thought after Kant, and in particular for the tradition of phenomenological hermeneutics. For it is here that one finds the conceptual underpinnings of *Heidegger’s point*.

Recall that Heidegger radicalized Kantian finitude by arguing that the very appearance of phenomena was at the same time marked by a certain latency, by an aspect that was covered over, so that phenomena exhibit the very structure of Kantian problematical concepts, the structure of liminality, the structure of included exclusion. This finitude, however, is not

grounded in Dasein's cognition, but in its comprehension, its *Verstehen*. If one takes a wooden table as writing desk, if one comports oneself to it as a tool in the equipmental context of writing, then one cannot at the same time comport oneself to it as firewood. How the table appears, its phenomenality, is thus marked through an exclusion of other modes of appearance. The phenomenon appears only through its exclusion, and this latency (*lēthē*) is included in the appearance, in any appearance, *as* what is excluded. This retrieval of Kant marks Heidegger's first radicalization of Kantian finitude.

There is, however, a more profound way in which the appearance of phenomena is marked by finitude, a way in which what even appears positively is at the same time and for the very same reason a non-appearance. If I take a wooden table as an object of equipment for writing, I cannot (usually) help but understand it in our current "technological" mode of understanding beings according to Heidegger. Thus, even in the very respect that I positively comport myself to the table, and not through the exclusion of other particular possible ways of comporting myself to it, I understand it, precomprehend it, only through the disclosive possibilities of my epoch. To make the point very clear, an ancient Greek simply could not take any object of her comportment as a space shuttle, which may be used for outer orbit space flight. That *I* can do so is a distinct possibility of the historicity of my present condition. One may understand historicity, then, as a more profound sense of the finitude of phenomena in their appearing through non-appearing. Phenomena must historically appear *as* the non-appearance of other historical possibilities. These other possibilities are included in the present appearing phenomenon *as* what is excluded. In Badiou's terminology, they mark the inexistence of our contemporary, historical world.

The most profound sense of finitude, however, is its operation as finitudizing, as *Verendlichung*. During the Marburg period, Heidegger attempted to articulate this sense of finitude through an account of Dasein's temporality. Because, at base, temporality is the meaning (*das Woraufhin*) of care, and care the meaning of the Being of Dasein, temporality is identified with Dasein, thus repeating the structure of Kant's Critical project. By his own lights, then, Heidegger did not twist free from Kant, and it is this site of impasse that marks *Heidegger's point*.

There are three Badiouian reasons why Heidegger's later thought cannot be taken to have improved upon this impasse. The first of these is *The Ancestral Problem*. Because Heidegger argues that the objective of his investigation, *die Sache Selbst* of his thought, is *prior* to apophatic discourse or rational-logical inquiry, he is committed to the rather embarrassing position that the reality of the universe is only as old as human beings. Any scientific claim that maintains that some part of the universe existed prior to human beings, such as a fossil, must be redescribed as existing prior to human beings *for us*. This inability to countenance the literal meaning of scientific, mathematical and logical claims, this inability to countenance the absolute existence of reality is *The Ancestral Problem*. Even Heidegger's later thought understands man and *Sein* as thought together through the happening of *Ereignis*. That *Ereignis* cannot be understood apart from man means that on this matter Heidegger's thought did not change significantly even in his later period. Thus, both early and late formulations of hermeneutics based on a sense of finitudizing are implicated by this criticism.

Next, Heidegger's and any similar attempt to "dig beneath" rational-logical discourse, both presupposes what is meant by "reason," and is erroneous in its presupposition. One of Badiou's central purposes in writing his work is just to debunk the notion that logic,

mathematics, and science are engaged in a purely manipulative ratiocination that results in a closed and determined sense of reality. Rather, even under what were classically taken as the ideal conditions for such closure, the results of mathematics suggest that errancy must be woven into the heart of what can be written of being. This means that the nihilism that supposedly results from modern logic, mathematics and science is misplaced. As a result, the need for the romantic speculative gesture that would disentangle philosophical thought and logical-mathematical-scientific reasoning, the very motivation for digging beneath apophatic discourse, is obviated. This result is *The Romantic Problem*.

Finally, and apart from the other critiques of Heidegger, apart from *The Ancestral Problem* and *The Romantic Problem*, the reason Heidegger's later attempts at articulating the clearing or *Ereignis* do not succeed in resolving the impasse in his early work is that he cannot be said to have twisted free from a form of presence. The objective of his inquiry is (a) to isolate a structure of included-exclusion, such as the clearing of Being, and (b) mark the radically discontinuous change in epochs of Being, such as the transition to our current technologizing epoch. Yet, he does not articulate a positive account for newness. The peril of thought for Heidegger consists in bringing one to the verge or threshold of Being as it is finitudizing, as *Ereignis* or clearing. He does not have an account of "intervention" as Badiou would argue, and thus he has not established an account of beings that is free from presence.

There is, above all else, a single criterion that an Event has occurred, and this is that something new has been brought into existence. Badiou has rightly argued that as a result an Event must have three parts: (α) an inexistent or a localized point at which the impossibilities of a world may be realized, (β) a radically discontinuous change, and (γ) an account of intervention that brings the formerly inexistent possibilities into existence. For Badiou this account is

specified through his philosophical analyses of forcing, the axiom of choice, the theory of points, and subjective in-corporation through organs. Nowhere in Heidegger's thought, or any thinker of finitude's thought, is such an account of intervention present. As a result, it cannot definitively be claimed that such commitment allows one to twist free from presence. In short, *by tying thought to finitude as finitudizing, by insisting that the peril of thought is encountered by dwelling at the limits rather than through positive intervention, Heidegger has at the same time wedded his position to a ghostly form of presence.* This critique is *The Ghostly Presence Problem*.

Beyond stating these problems, I have argued that there is no way for Heidegger or those committed to the finitude of thought generally to avoid these Badiouian critiques. For the very character of Heideggerian thinking, the way to any domain of understanding or reflective thought that is held to be prior to logical critique is through regression. Yet, the character of any regressive argument is such that one must also make the "return route" in order to complete the argument. Notoriously, Heidegger never made that return and no other thinker of finitude (such as Hegel) has done so in a way that would satisfy the demands of contemporary scientific or rational thought. Moreover, these *de facto* failures are failures that cannot be completed. For in order to complete the return route one would have to "dig beneath" all rational and logical discourse once and for all. Yet, this cannot occur, since the very character of rational discourse is now understood to undergo Evental change. As a result, the best one could accomplish is to "dig beneath" a certain synchronic slice of "rational" discourse, but never the whole scope of rational inquiry as a process. This result, the illusion of "digging beneath" rational discourse once and for all, is *The Regression Problem*. It is this problem that forces Heideggerians and all

those committed to the project of finitude to meet the three Badiouian criticisms, namely *The Ghostly Presence Problem*, *The Ancestral Problem*, and *The Romantic Problem*.

Thus, one may say that the way beyond *Heidegger's point*, the solution to the basic problem of first philosophy, is to articulate an account of human cognition, and even more broadly: the character of world process, that is infinite. This new need, along with its consistent elaboration, is what may be termed the *infinetization of reason*.

Yet there remains a second chapter to this account of the *infinetization of reason*. There are criteria for success in articulating this infinitizing. These criteria are at the same time the reasons one cannot remain contented with Badiou's own proposal.

The first of these is that one's new account cannot abrogate the advances already made through previous research. One of the great breakthroughs of phenomenological hermeneutics was the Husserlian insight into the irreducibility of first-person consciousness to third-person descriptions. This irreducibility may be formulated as the explanatory gap between the two modes of cognition. A person may be in possession of the knowledge that Sebastian Purcell is seated at a table at a certain time and place, with the cones and rods in his eyes activated by certain photons, etc. as may be ascertained through third-person description. Yet even with such knowledge one may utterly fail to recognize that one is that person (as might happen in a case of amnesia). Acknowledging the explanatory gap requires that one support a one-level account of first-person intentional consciousness. Yet Badiou's own phenomenology patently fails to observe this gap and proceeds as if, and without any argument, it did not exist. This matter is what is at stake in *The Appearance Problem*.

A second criterion of success is that because philosophical argument must proceed reasonably, it must be possible to specify the way in which one's position fares better than a rival

position. The point here is that a philosophical position must be able to specify how other philosophical thought serves as a condition for one's own departure (as I am presently doing). Without such criteria one risks suturing oneself blindly to a tradition of thought, uncritically accepting premises, and so on. Badiou himself has provided no such grounds, and because Events on his reasoning are inaccessible to those who do not recognize them, he has provided no account of how such oppositions may be resolved reasonably. This matter is *The Suturing Problem*.

A third criterion of success is that one must be able to account for Evental change in such a way that is consistent with the domains in which that Event occurs. For epistemic domains in particular, such as scientific investigation, it must be the case that one's account does not make rational resolution mysterious or impossible—on pain of turning science into a miracle. Additionally, and for the same reason, one must be able to specify how such Evental changes constitute quasi-advance. That Badiou is unable to do so in his present account, that his formalization of events makes rational resolution an impossibility in principle, constitutes *The Inexistence Problem*.

Finally, the most basic criterion for success in articulating an account of human reflection that is consistent with the need for the infinitization of reason is simply that it retain an openness to the positive character of Events, that one's account nowhere hems in or closes down the character of the radically discontinuous change that is at the heart of an Event's occurrence. Yet, Badiou's own work fails to retain this openness. Not only does he restrict, without argument, the range of possible Events to four types, he leaves open no possibility for the radical development of his own account. In short, he never thematically broaches the possibility of Emergence,

though he does at points operate tacitly and unthematically with this notion. This matter is what I intended primarily by *The Emergence Problem*.

Taken together the first two chapters of the present work specify the concrete character of the *infiniteization of reason*. If, in the foregoing, I have taken Badiou as my primary interlocutor, it is because his thought poses the greatest challenge to the tradition of thought I here defend. My argument is that infinite hermeneutics following its articulation in a third model constitutes a superior formulation, both of the problem itself and of the solution provided.

2. Infinite Hermeneutics

I have maintained throughout the present work that despite the deficiencies in Heidegger's thought it is by remaining with the tradition of phenomenological hermeneutics that one is best able to think through the consequences of the *infiniteization of reason*.

Its point of departure already marks an advance on Badiou's thought. For this is a tradition that makes a one-level account of first-person consciousness an integral, if not final, aspect of its position. The Galoisian Revolution in phenomenological philosophy argues that hermeneutics stands to phenomenological inquiry as pre-Galoisian algebra stands to post-Galoisian algebra, which is to say that it reflects on its structures and operational invariance. An immediate implication is that hermeneutic philosophers are free to make use of phenomenological descriptions of first-person consciousness, but they are neither constrained only to this reflection, nor are they wedded to the notion that the results are incorrigible matters. Furthermore, this revolution suggests that the primary objects of reflection are patterns of consciousness, and not single intentional acts. This last feature enables hermeneutic

philosophers to carry out impersonal phenomenologies, and so avoid commitment to a final kind of grounding unity at the heart of their reflection.

As a result of this commitment to impersonal phenomenology, hermeneutic philosophers are in no way encumbered with *The Appearance Problem*, as Badiou and Meillassoux are. Furthermore, because the objective of hermeneutical philosophy is to articulate the existential meaning of all human practices, it is committed to the traversal through a “long road” of inquiry, which addresses any of the relevant scientific discourses. It does not, as a result, encounter any of the problems posed by *The Regression Problem*.

The heart of the present argument’s position turns on a phenomenology of human inquiry, which I proposed as a third model for hermeneutical reflection—one which would come after Ricoeur’s first symbolic model, and his later textual model. Just as Ricoeur argued, this phenomenology is committed to the existence of a correlation between the activity of questioning and that about which one questions. But this correlation is in no way like that of precomprehending that P is the case and then articulating it. Furthermore, through the existence of inverse insights, one may come to understand that the way the question was initially posed is ill-formed. So it is that this correlation is not itself absolute, and because it is precisely the kind of questioning one can find at work in logical, mathematical, and scientific inquiry, it is open to the possibility of reaching the absolute. This phenomenology of inquiry thus meets *The Ancestral Problem*.

The third model of hermeneutics also allows one to expand the model of Evental causation found in Ricoeur’s early thought not only so that one can meet Badiou’s requirements for an Event, but also so that one can retrieve the radical character of Heidegger’s own account of *Ereignis*. An occurrence or emergent process may be understood as an Event if it fits the

following form: it is (α) a realization of an inexistent, (β) a radically discontinuous change, and (γ) a process that (i) for natural Events brings into existence new cycles with their possibilities, and exhibits progressive realization of some of those possibilities, or (ii) for catastrophic Events exhibits the marked absence of those cycles and their possibilities, or (iii) for human Events exhibits a structure of (a) wagering, (b) verification, and (c) transformation.

The emergence of a new ecosystem, such as that of the Florida Everglades, thus qualifies as an Event for the following reasons. First, because the ecosystem brings with it new possibilities for probable realization the cycles that make up the ecosystem are themselves the realization of the possibilities that did not exist in the prior ecosystem (or set of ecosystems). Such emergence thus meets requirement (α). Yet, at the same time because an ecosystem such as the Everglades is itself a recurrence of cycles, which thus progressively realizes some of its possibilities, it meets requirement (γ .i). Finally, because the emergence of new possibilities cannot be explained in terms of the prior complex underlying manifolds, the change is radically discontinuous, meeting (β).

A scientific revolution, such as occurred with the replacement of Einstein's general relativity physics for Newton's physical program, may be understood as an epistemic Event for the following reasons. First, I argue that these epistemic practices may be understood as a world, or an ecosystem. This is the case because *the inquiry itself* exhibits classical, statistical, and developmental processes. The cycle of inquiry is itself a conditioned series of cycles, in which lower complex manifolds (sensed data, images, questions, proximate and remote criteria, etc.) serve as the conditions for the emergence of higher-order phenomena, such as direct, inverse, and reflective insights. The functionally linked sequence of heuristic anticipation and provisional answer, coupled with reflective judgment and renewed inquiry, thus exhibits what

one might call classical and statistical process. Furthermore, the operator of development in these cases is the desire to know itself, the basic process of asking a question and attempting to find answers for it. The course of scientific thought may thus be understood to exhibit developmental process. The immediate consequence is that each epistemic world has an inexistent, and as a result meets requirement (α).

The existence of some inexistent is not sufficient to begin an Event in an epistemic world. Rather, the origin of such an Event must begin with a wager on an inexistent (γ .iii.a). It is with respect to either the proximate or remote criteria that one may wager on an inexistent. Often, in science, the term for such an inexistent is an “anomaly,” but the account provided here suggests that an “anomaly” may be any phenomenon that counters the anticipations of intelligent inquiry nurtured by an education in the relevant epistemic matters. To make good on the wager requires corroboration (γ .iii.b). One’s task in these matters is to settle disagreement concerning aims, methods, or concepts. In short, it must itself serve as the ground for a continued conditioned series of cycles of inquiry. When an inverse insight is made that recognizes the inadequacy of the questions posed, *and* when a new account is proposed that is able to progress beyond the merely negative inverse insight to the fully complementary range of insights, then a higher viewpoint is said to be established. At this point both points (β) and (γ .iii.c) are met, since an inverse insight is by definition a radically discontinuous intelligibility with respect to the matter under consideration, and the positive statement that results is just what is meant by a transformation of the epistemic world.

Finally an Event may be said to be Emergent just in the case that it constitutes an Event with respect to the present characterization of Events. More specifically, Emergence may take the form of metaphysical Events, such that either a new kind of physical process Emerges or

such that epistemic characterizations of such processes Emerge. An example of this last possibility is the Emergence of statistical inquiry. Emergence may be ontological if the present phenomenology of inquiry undergoes Evental development.

These points demonstrate how each of Badiou's own deficiencies are remedied in the present context, as well as how the present account responds to the remaining Badiouian objections against phenomenological hermeneutics. To begin, I have not only affirmed a robust account of Events that includes the character of intervention (part γ), but I have expanded Badiou's own account considerably. The present account, as a result, is in no way subject to the concerns developed in *The Ghostly Presence Problem*. Next, I have taken recourse to the relevant logical, mathematical, and scientific investigations in order to establish the present account of ecosystemic world process, and this investigation affirms, in a way similar to Badiou, that it is precisely by following rational investigation that one has the best grounds for affirming the radically open character of being. In short, not only do I avoid *The Romantic Problem*, I also provide better and more adequate reasons than Badiou's set and category-theoretic account to be convinced that it is a problem. Third, precisely because the third model of hermeneutics yields a more robust and nuanced account of Evental causation, the present account is not burdened by *The Inexistence Problem*. Not only are epistemic Events taken to be rationally resolvable, they are taken to be marked advances on their predecessors. Fourth, because the present position is itself engaged in an epistemic practice, namely philosophy, and because I have specified the ways in which Events in epistemic practices may occur rationally, I have provided a generic account for how philosophical positions may be understood to be superior to their rivals. In the present case, this task is accomplished through responding to the problems that make up the need for the *infinitezation of reason*. What this means is that it is possible, following the third model

of hermeneutics, to avoid *The Suturing Problem*. Finally, unlike Badiou, the present account of phenomenological hermeneutics can articulate in a clear and consistent way just what Emergence is and under what conditions it may occur. It is thus able to retain the fully open and radically discontinuous character of Events and avoid *The Emergence Problem*.

It is on precisely these grounds that I propose that the present argument is the best candidate available in addressing the concerns of first philosophy following in the wake of Kant and Heidegger. The one matter of deficiency relative to Badiou's own project is that I have prescinded from providing account of subjectivity. My argument for the superiority of the present position, then, is only relative, but I do think rationally warranted.

3. The Malaise of Modernity

Correctness, and in this case only relative correctness, is yet but one of the concerns of philosophy. In addition to providing an account of what is, one must also provide an account of what the existential significance of one's findings is. Throughout the present work, I have labored both to correct and to develop the initial motivations for the critique of the metaphysics of presence, or what Heidegger more often called "ontotheology."

At its base, the reason anyone should be concerned with the metaphysics of presence is that such a way of understanding reality has undesirable consequences. The broad term that Heidegger used for these undesirable consequences, and on this score he followed Nietzsche, was "nihilism," but following Charles Taylor it may be more apt to term them the malaise of modernity. In many ways it is this sense of being ill-at-ease, or more pressingly that something is profoundly wrong, that has animated the broad tradition known as Continental philosophy.

Broadly, one may say that there are three principle ways in which the condition of modern existence has seemed troubled. The pivotal concern from which the others may be understood to spring is instrumental reason. This kind of reason Heidegger argued resulted from understanding being in terms of standing presence. The argument is that by understanding the world as reasonable, present, and open to manipulation, the “yardstick” for success is understood in terms of maximal efficiency, the best cost-benefit ratio. One no longer needs to live up to some transcendent order of demands, whether those are God’s or simply nature’s. While this approach to the world has been understood as liberating, the technology that pervades our lives, and is usually taken to typify this kind of reasoning, is at the same time understood to flatten them out. In place of meaning one has efficiency. And because viewing reality in this way is so successful, there seems to be little hope in avoiding the juggernaut of automation and bureaucratic regulation.

The immediate consequence of instrumental-technological reason is a disenchantment of the world. The argument goes that the pre-modern world was, if irrationally linked to a transcendent order, at least filled with a kind of magic that gave one’s life a sense of purpose. The decline of this worldview is again understood ambivalently. Instead of living one’s life as subject to the evaluations of one’s traditions and a rigid transcendent order, one is now to make one’s own choices as an individual. One need not wear a scarlet letter if one is an adulterer, but at the same time this individualism is taken to be isolating. Here technology again appears, both making new human relations possible through the telephone, television, internet, and so on, yet at the same time substituting various forms of mediation for direct communication—a mediation that, one notes, would be unnecessary if modern society did not require that families continually move and shift from city to city in accord with the bureaucratic demands of corporatism.

Yet beyond even these matters, it is perhaps the political consequences that prove most troubling. Following Critchley I have articulated these concerns as those that are split between passive and active nihilism. The temptation to passive nihilism is the temptation to quietism. It becomes increasingly difficult to effect change in our contemporary society, for those who do not conform to the expected bureaucratic standards are marginalized for their differences. At a basic level, one can think of the way in which it is nearly impossible in many contemporary cities to function without a car. Because viable alternatives are not available one is robbed of the positive freedom to choose otherwise, yet because so many comforts are at the same time provided by contemporary society, few are likely to revolt on account of these “nuisances.” The passive nihilist capitulates to this temptation. The active nihilist, by contrast, revolts blindly against the whole “military-industrial-complex,” or what is often called merely “the West.” Yet these blind actions, typified by the destruction of the world trade center on 9/11, fail to supply any recurrent and positive form for the goods supposedly desired. The temptation to give in to this blind destruction is the temptation of active nihilism.

My own proposal is not to argue directly against these conclusions, but to suggest that they stem from another source, and as a result to broaden them. Reason in its infinite dimension, I have argued, is precisely the road to new forms of human existence, not because it secures iron-clad success, but because such success can never be secured in an iron-clad way, because there is an inexistent in any existential world. There is an aspect, a subset of reason, which I defined as “technique,” that functions in the way instrumental reason is supposed to operate. But it is reason in its broader and more interesting operation that at the same time enables one to pass beyond those concerns. If one is alive to this dimension, one will recognize not only that there is a kind of transcendence that one can achieve through action and commitment to Evental change,

but also that so many of these “nihilistic” concerns are concerns that affect only those living in the most industrialized countries of the world, in maybe a little more than the G-7. In short, recognizing the consequences of the infinitization of reason opens one to the recognition that the contemporary world is fissured by a monumental distributive injustice, that beyond the fact that people find their lives meaningless other people are starving to death. I pause now to elaborate these broader considerations.

4. Fragility

The first concern stems from the unique character of world process. There is no world that encompasses all other worlds. In Badiou’s terminology, there is no whole. The reason for this conclusion is that the complementarity of classical, non-systematic, and developmental processes ensures that at any given moment the relation between actuality and possibility is equiprimordial. While any ecosystem progressively realizes its possibilities through the successive schedules of probabilities of their occurrence, at each moment such realization at the same time brings into existence new possibilities for realization. The existential import of this insight is that world process is unique, and that there is always but a narrow window of opportunity to realize the possibilities of existence. Furthermore, once vanished these possibilities will have disappeared forever. It is this sense of uniqueness that forms the basis for the present account of the fragility of the human condition. This fragility may be elaborated through the following considerations.

I have argued that there is a finality or general tendency for increasing systematicity in world process, but there is a double limitation to this character. First, there is both a probability for the increasing complexity of world process as well as its decline. In the short run, the

probability for decline is relatively small, but not in the very long run. To the best of our understanding it appears to be a virtual certainty that there will be large scale collapse, that significant possibilities will disappear totally, and these may take the form of a planet's decline or even that of a human culture's. Second, there is an absolute restriction on the total amount of systematization for the universe. Again, according to our best accounts it seems to be a near certainty that the upward mobility of world process will stop. One reason for this is that the second law of thermodynamics, which conditions the lower manifolds of world process, suggests that there is a limit on the amount of available usable energy. Following more strictly in line with the analysis of the relation of systemic ascendancy to developmental capacity within an ecosystem, it appears to be likely that there will be some collapse such that the basic conditions for the return of that mobility are equally annihilated.

I raise this matter not only because the uniqueness of world process suggests that our existence is imbued with a radical form of responsibility, but also because these considerations bear on the possibility of eternity. One of Badiou's reasons in specifying an account of intervention was to suggest that by participation in an Event a subject might achieve eternity, a secular form of immortality. What the present reflections on world process and Evental change suggest, to the contrary, is that there is no such possibility. Perhaps a very long existence is possible, but not an eternal one. While one may still hope for such a possibility, the present account provides no *reasons* to affirm such an existence. This wish, perhaps humanity's deepest and most long-standing hope, is not something that may be achieved by reflection on Events or the role humans play in their intervention.

Yet, these considerations on world process also specify the character of human existence in our contemporary globalized world, as well as what sense our catastrophes carry for us. It is to these matters that I turn now.

5. Traumatic Existence

To move beyond the narrow Eurocentric conception of the malaise of modernity is to recognize that the spatial distributions of existential possibilities in the contemporary world are unequal on a massive scale. More, that these inequalities are the direct result of human action and that the very character of human existence, of the human condition is thus one that is fractured in multiple ways.

The history of this inequality is at the same time the history of globalization, which may be taken to mark the beginning of modernity itself. That Columbus accidentally navigated to the lands that are now called the Americas, and at the same time united the former inter-regional systems of trade into the modern world-system, in no way marks the superiority of the European spirit over the people it encountered. That Columbus mistook his technological might as a sufficient warrant for beginning one of the most catastrophic imperial projects of recorded human history is the real origin for the “underdevelopment” of supposed third-world countries. Nor was this colonialism an isolated enterprise, but one that was systematically executed all over the globe, and which at the same time plunged each one of the colonized peoples into catastrophic decline. This was not the result of instrumental “reason,” but of dominating “reason.” *The result was a fissuring of the human condition through its multiple wounds into*

human conditions. This is a difference people live, and it explains why some suffer from a loss of meaning in their lives and others simply from a lack of food.

The twentieth century witnessed numerous such catastrophes, most notably: the Shoah and the Gulags. One cannot say anything positive about these occurrences; one cannot even compare them, save by noting that in each case their occurrence marks an historical Singularity. What is claimed in such a case is not that there is some matter that is positively comparable, but that what must be grasped is that one cannot compare them, that there is no similarity to their decline and the possibilities of human existence that are lost utterly. The fragility of world process suggests that possibility and actuality are equiprimordial, so that once lost there is not even an all to what could have been. This is the extent of radical loss, and it is the history of such losses that makes up our human conditions.

The task that remains in these cases is to mourn these losses, to work through them as traumas to our historical being. Furthermore, for those who remain on the underside of modernity, for those who must daily live through the legacy of Euro-American imperialism, the task calls for response and responsibility. It calls us to recognize the inexistence of possibilities in our world and to intervene to establish new recurrent cycles that will progressively ameliorate the distributive inequalities of our existence and perhaps make our traumas livable.

What these considerations suggest is not that the present human condition has lost an overarching grand narrative, so that one must now focus on localized micro narratives. Instead it suggests that such a post-modern conclusion is founded on the same Eurocentrism as the Enlightenment thinking it hoped to replace, that it retained the same myopic focus on the privileged existence of those who live in the G-7, and that it devalued the ongoing and uninterrupted concerns of those who struggled for basic survival.

The trans-modern condition, by contrast, recognizes that the separate existence of human peoples was only ever joined through patently unjust subordination and catastrophe, that not only was there never a direct line from the ancient Greeks to the 20th century Germans, but also that the loss of such a vision constitutes an advance, a recognition of our human conditions. The plurality of these conditions, I stress, does not entail that they are isolated. Rather, they continue to communicate in such a way as to perpetuate the traumas of our existence. In place of melancholy, then, the trans-modern condition calls for mourning. In place of nostalgic loss, it recommends hope through the very use of the infinity of reason itself.

Taken together all of these points articulate the trans-modern condition. It is articulated in three theses, each with corollaries. First, while the standard account argues that the malaises of modernity stem for an inability to reckon with the finitude of our human condition, which opens one to some supposedly prior disclosive dimension, the present account argues (i) that they result only in a restricted space of existence, and (ii) that in such cases they emerge from a failure to understand the infinite dimension of reason and world-process. Second, in place of a machinelike and closed account of world process, the present account argues for an ecological conception of natural and human existence that is open to Evental change. Instead of a meaningless world, then, the present account of world process suggests a sense of fragility and responsibility. Finally, while standard accounts of the human condition ignore the existence of the majority of the world's people and argues about the possibility of completing the Enlightenment project given the existence of a catastrophe such as the Shoah, the present

account argues that our contemporary existence has been and continues to be fissured by such catastrophes, which live on as the traumas in our existence. The legacy, the coordination of these catastrophes began with modernity itself, and because our world system is unique in its functioning it cannot be completed as if there were a lost reservoir of possibilities still to be claimed. While one may expect that in the long run all will come to naught, there yet remains reason to hope. The hope that we have follows precisely from the fact that world process is unique, that there is always an inexistence to every world, and that radical discontinuous change is even a likely probability. We may thus yet learn to mourn our catastrophes, work through our traumas, and ameliorate the inequalities of our split existence. If these tasks constitute much work for philosophical, poetic, and political reflection, then at least they carry with them some measure of promise and reward.

Notes to Chapters

0 The Contemporary

¹ Friedrich Nietzsche, *Nietzsche Werke: Kritische Gesamtausgabe*, vol. VI₂, eds. Giorgio Colli and Mazzino Montinari (Berlin and New York: Walter de Gruyter and Co., 1968): 242. Translation is my own.

² Friedrich Nietzsche, *Nietzsche Werke: Kritische Gesamtausgabe*, vol. I, eds. Giorgio Colli and Mazzino Montinari (Berlin and New York: Walter de Gruyter and Co., 1972): 242. Translation is my own.

³ I here have in mind Thomas Sheehan's account of Heidegger's "Kehre" as the third thing, "die Sache Selbst" of his thought especially during the period of the *Contributions to Philosophy*. For the clearest statement on this matter available in English see Sheehan's "A Paradigm Shift in Heidegger Research," *Continental Philosophy Review* 34 (2001): 183-202.

⁴ For those interested in a more thorough review of the matter in English, I know of no better work than John Sallis' *Echoes: After Heidegger* (Bloomington and Indiana, Indiana University Press, 1990). While the whole work is remarkable, on this point in particular, see chapter two entitled "Time Out ..."

⁵ Martin Heidegger. *Der Begriff der Zeit, Gesamtausgabe*, Band 64 (Frankfurt a.M.: Vittorio Klostermann, 2004), p. 119. Translation is my own.

1 Finite Hermeneutics

¹ For an excellent historical account of the development of hermeneutics, see Richard Palmer's *Hermeneutics* (Evanston: Northwestern University Press, 1969). Also, as will be addressed below, Paul Ricoeur's essay "The task of Hermeneutics," in *Hermeneutics and the Human Sciences*, ed. J. Thompson (Cambridge: Cambridge University Press, 1981) provides an indispensable account of the development of hermeneutics for my own project. John D. Caputo's critique, finally, has proved crucial for the current work, especially chapters 3-7 in *Radical Hermeneutics: Repetition, Deconstruction, and the Hermeneutic Project* (Bloomington and Indianapolis: Indiana University Press, 1987).

² Martin Heidegger, "Vom Wesen des Grundes" in *Wegemarken, Gesamtausgabe*, Band 9 (Frankfurt am Main: Klostermann, 1976); "On the Essence of Ground" in *Pathmarks*, ed. and trans. by William McNeill, (New York and Cambridge: Cambridge University press, 1998), p. 44/116.

³ Immanuel Kant, *Logic*, trans. Robert S. Hartman and Wolfgang Schwarz (New York: Dover Publications, 1974), p. 29.

⁴ Ibid.

⁵ Martin Heidegger, *Kant und das Problem der Metaphysik, Gesamtausgabe*, Band 3 (Frankfurt a.M.: Vittorio Klostermann, 1991); *Kant and the Problem of Metaphysics*, trans. Richard Taft, (Bloomington: Indiana University Press, 1997), p. 21/15.

⁶ *Kant and the Problem of Metaphysics*, p.25/18.

⁷ Ibid., p. 28/20.

⁸ Ibid., p. 29/21. Heidegger notes that this discursive character of thought is its sharpest index of finitude.

⁹ Ibid., p. 22/16.

¹⁰ Ibid., p. 30/21.

¹¹ Ibid., p. 32/22.

¹² Ibid., p. 32/23.

¹³ Martin Heidegger, *Prolegomena zur Geschichte des Zeitbegriffs, Gesamtausgabe*, Band 20 (Frankfurt am Main: Klostermann, 1979); *History of the Concept of Time: Prolegomena*, trans. Theodore Kisiel (Bloomington and Indianapolis: Indiana University Press, 1985), p. 103/75.

¹⁴ Ibid., p. 61/46.

¹⁵ Ibid., p. 62/46.

¹⁶ Ibid., p. 136/99.

¹⁷ Ibid., pp. 136-7/99-100.

¹⁸ Ibid., p. 137/100.

¹⁹ Ibid., p. 150/109.

²⁰ Ibid., p. 158/114.

²¹ Ibid., p. 159/115.

²² Ibid., p. 107.

²³ Ibid., p. 179/129.

²⁴ Ibid., p. 180/130.

²⁵ Heidegger's clearest statement of this point is in *Kant and the Problem of Metaphysics*, and reads as follows: "Existenz bedeutet Angewiesenheit auf Seiendes als ein solches in der Überantwortung an das so angewiesene Seiende als ein solches" (p. 228).

²⁶ Without the interpolations the statement as a whole reads: "Das pure »daß es ist« zeigt sich, das Woher und Wohin Bleiben im Dunkel."

²⁷ John Caputo, *Radical Hermeneutics: Repetition, Deconstruction, and the Hermeneutic Project* (Bloomington and Indianapolis: Indiana University Press, 1987), p. 77.

²⁸ To be clear, Heidegger writes: "The Being which is disclosed is that of an entity for which this Being is an issue. The meaning of this Being—that is, of care—is what makes care possible in its Constitution; and it is what makes up primordially the Being of this potentiality-for-Being" (BT 325/372). Care is the meaning of the being that is Dasein—of what makes-sense-as in one's world. The difficulty that is not yet addressed so far in *Being and Time*, is that the meaning of the world is not individual, but communal. This is why the later sections, concerning first the repetition of the existentialia and later analysis of fate (*Schicksal*) are necessary.

²⁹ Martin Heidegger, *Gesamtausgabe*, Band 14, "Protokoll zu einem Seminar über den Vortrag »Zeit und Sein« in *Zur Sache des Denkens* (Frankfurt am Main: Klostermann, 2007), 64; "Summary of a Seminar on the Lecture 'Time and Being,'" in *On Time and Being*, trans. Joan Stambaugh (Chicago: The University of Chicago Press, 1972), 54.

³⁰ Martin Heidegger, *Parmenides*, *Gesamtausgabe*, Band 54 (Frankfurt a.M.: Vittorio Klostermann, 1982); *Parmenides*, trans. André Schuwer and Richard Rojewicz (Bloomington and Indianapolis: Indiana University Press, 1992), p. 233-4/157. That Heidegger sees a close connection between the Christian conception of the infinite-finite doublet and Rilke's Open is stated clearly on the next page as follows: "Such an interpretation makes Rilke's poetry appear to be some sort of derailed Christianity, badly in need of succor, and such apologetics risks flying in the face of the expressed word and will of the poet" (p. 236/158).

³¹ Martin Heidegger, "Das Ende der Philosophie und die Aufgabe des Denkens" in *Zur Sache des Denkens*, *Gesamtausgabe*, Band 14 (Frankfurt am Main: Klostermann, 2007); "The End of Philosophy and the Task of Thinking" in *On Time and Being*, trans. Joan Stambaugh (Chicago: The University of Chicago press, 1972), 79/64. The translation here is modified.

³² Ibid., pp. 79-80/64. Translation modified.

³³ Ibid., p. 84/68.

³⁴ Ibid., p. 85-6/69.

³⁵ Ibid., p. 88/71.

³⁶ Ibid., p. 90/73.

³⁷ Martin Heidegger, *Unterwegs zur Sache*, *Gesamtausgabe*, Band 12 (Frankfurt a.M.: Vittorio Klostermann, 1985); *On the Way to Language*, trans. Peter D. Hertz (New York: Harper and Row, 1971), pp. 121-2/29.

³⁸ Ibid., p. 122/30.

³⁹ Ibid., p. 126/33.

⁴⁰ For his fourth argument, which is his critique of intuition, see chapter 4 §2 of the present work.

⁴¹ *Being and Event*, p. 273.

⁴² Quentin Meillassoux, *Après la finitude: essai sur la nécessité de la contingence* (Paris: Éditions du Seuil, 2006); *After Finitude: An Essay on the Necessity of Contingency*, trans. Ray Brassier (New York: Continuum Press, 2008), p. 178/128.

⁴³ Ibid., p. 19/5.

⁴⁴ Ibid.

⁴⁵ On this point see especially §24 of Husserl's *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy I*, trans. F. Kersten (Boston: Martinus Nijhoff Publishers, 1983).

⁴⁶ Meillassoux, *After Finitude*, p. 8.

⁴⁷ Ibid., p. 4.

⁴⁸ Ibid., p. 7.

⁴⁹ Badiou spells this point out clearly in "Meditation Twenty-Six" of *Being and Event*, especially subsection seven on Easton's theorem.

⁵⁰ Making just this point one of the major aims of Badiou's *Le Nombre et les nombres* (Paris: Éditions du Seuil, 1990); *Number and Numbers*, trans. Robin Mackay (New York: Polity Press, 2008). See especially the introduction, "Number Must Be Thought."

⁵¹ The two terms "ontotheology" and "metaphysics of presence" are, of course, not strictly interchangeable. Heidegger's is the former, and he means to designate by it the dimension of ontology that is more fundamental than traditional ontological discourse. The latter is Jacques Derrida's, and it is clear that he tries to disrupt the history of metaphysics, rather than dig underneath it. For the present argument, however, I think it is legitimate to treat them interchangeably, since they both oppose the same position, namely presence, for similar if not the same reasons.

⁵² See in particular the May 8th and May 15th lectures of Badiou's *Théorie du sujet* (Paris: Éditions du Seuil, 1982); *Theory of the Subject*, trans. Bruno Bosteels (New York: Continuum Press, 2009).

⁵³ Badiou explicitly states that constraining being by a limit reinstates the power of the One, or the metaphysics of presence as follows: "we have to assume, as did Lucretius, that manifold-unfolding [=being as pure multiplicity] is not constrained by the immanence of a limit. For it is only too obvious that such a constraint proves the power of the One as grounding the multiple itself" (ST 28/35-6).

⁵⁴ Because Badiou's concept of the event just is so radical philosophers have misunderstood him by assimilating his notion to their own frameworks. Giorgio Agamben, for example, in *Homo Sacer: Sovereign Power and Bare Life*, trans. Daniel Heller-Roazen (Stanford: Stanford University Press, 1998) makes just this same mistake in sections 1.4-1.6. Simon Critchley in *Infinitely Demanding: Ethics of Commitment, Politics of Resistance* (New York: Verso Press, 2007) provides almost exactly the same characterization in chapter two. The cottage industry that is popping up around the relation of Badiou to Jean-Luc Marion is again totally blind to this distinction. On this score see Adam S. Miller's essay "Reduction or Subtraction: Jean-Luc Marion, Alain Badiou, and the Recuperation of Truth" in *Philosophy Today*, SPEP Supplement (2007), pp. 23-32, and his book *Badiou, Marion and St. Paul: Immanent Grace* (New York: Continuum Press, 2008). And again, the responses surrounding Badiou's relation to any of these philosophers is also confused on this point. See, for example, Paul M. Livingston's "Agamben, Badiou, and Russell" in *Continental Philosophy Review* 42 (2009): pp. 297-325, which, though an admirable article, never notes this structural difference.

⁵⁵ Kant goes on to specify that the noumenon, then, is a problematic concept but in no way a contradictory one. On these points see the *Critique of Pure Reason*, trans. Normak Kemp Smith (New York: Paulgrave Macmillan, 2003), pp. B 307-11.

⁵⁶ I am staying with Badiou's language in *Being and Event* here for simplicity's sake, and because it proves to be more continuous with his statements in *Conditions*.

⁵⁷ The most schematic account of this point is to be found in Badiou's essay "On Subtraction" in *Conditions*.

⁵⁸ A necessary note here is that in *Logics of Worlds* the axiom of choice does not hold the same status, since it is the theory of points that takes its place.

⁵⁹ For my critique of Slavoj Žižek on this matter in particular, see my "On Idealism and Infinity: Two Ways to the Ontological Turn," forthcoming in *Radical Philosophy Review*.

⁶⁰ See Sallis' *The Verge of Philosophy* (Chicago: The University of Chicago Press, 2008). The focus of the work is devoted to making just this point.

⁶¹ Michel Foucault, *The Order of Things: An Archeology of the Human Sciences* (New York: Vintage Books, 1994), p. xxiii.

⁶² I have quoted from Madarasz' translation rather than David Farrell Krell's in his translation of Heidegger's *Nietzsche*, since Badiou's point is somewhat lost in the standard formulation. For a similar point elsewhere in Heidegger's corpus see §110 of *Contributions to Philosophy*.

⁶³ This insight might serve as a quick test to determine whether one is in the presence of a post-Cantorian understanding of infinity. If it is possible to answer how large the infinite is of which one is speaking, then it is Cantorian. If instead one is forced to answer indefinitely large or simply very large, then one is discussing a pre-Cantorian infinity. In this last case, one's discussion might very well be subject to Badiou's critique of Romanticism.

⁶⁴ Georg Cantor, *Contributions to the Founding of the Theory of Transfinite Numbers*, trans. Philip E. B. Jourdain, (New York: Cosimo, 2007), pp. 85-6.

⁶⁵ It might be well to note that the part/whole relation here is taken by Badiou to be exhaustive. However, when Badiou's thought develops in *Logics of Worlds*, this exhaustiveness changes in a crucial sense to allow for phenomenal objects.

⁶⁶ It should be noted that the crux of Badiou's critique of Deleuze can be found at precisely this point. For Badiou, Deleuze simply fails to recognize a post-Cantorian account of the set, and so fails to recognize what a multiplicity is.

For a further elaboration, see Badiou's "One, Multiple, Multiplicities" in *Theoretical Writings* ed. and trans. by Ray Brassier and Alberto Toscano (New York: Continuum press, 2006), 71-2.

⁶⁷ Two technical points are necessary here. First, one must bear in mind that while a set is a collection, it may be a collection of empty collections (null sets) or an "empty collection" itself (i.e. it might be the null set). Second, for the account of set theory with which Badiou is concerned, a set is what is to be understood in the V hierarchy of Zermelo-Fraenkel set theory with the axiom of choice (ZFC). For the present purposes this means that the null set counts as a set, and so does any set constructed either from it or from the axiom of infinity. For more on this point see the account given in the following chapter.

⁶⁸ This rough definition, of course, omits any discussion of the equality. Briefly, such equality can be defined as: for a subset B' of B , such that there is a one-to-one correspondence between A and B' , and for a subset A' of A there is a one-to-one correspondence between A' and B . The famous proof that demonstrates this for both finite and infinite sets is the Schröder-Bernstein theorem.

⁶⁹ It is of course possible to put rational numbers in a well ordered sequence, but this is not their "natural" order—i.e. one must rearrange them to do so.

⁷⁰ In particular Badiou suggests this is an application of the Axiom of Replacement as well as what follows from the Power Set Axiom.

⁷¹ The angled brackets $\langle \rangle$ indicate that the order of this set matters. For an ordinary set $\{a, b\}$, order does not matter, so that it is equivalent to $\{b, a\}$. In the set under consideration $\langle 1, 2, 3, 4, 5 \rangle$ is not equivalent to $\langle 1, 5, 3, 4, 2 \rangle$.

⁷² I have here omitted discussion of Cantor's three rules of generation that allowed him to produce a sequence of ordinals, with corresponding cardinals, larger than ω_0 for the sake of simplicity. For an accessible account of Cantor's procedure see Mary Tiles' *The Philosophy of Set Theory: An Historical Introduction to Cantor's Paradise* (New York: Dover Publications, 1989), pp. 104-7.

⁷³ For a clear account of the proof and the role of 'diagonal' reason used in it see *Being and Event* pages 274-5. For a more visual and equally accessible demonstration see *The Philosophy of Set Theory* pages 107-11.

⁷⁴ This conclusion is premature even for Badiou. What he means here is that this metaphysical God does not exist—he seems to have Spinoza especially in mind here. For his treatment of the personal God that one finds, for example, in Kierkegaard, and the poetic god of Heidegger, see the first chapter of his *Briefings on Existence*.

⁷⁵ The context of Badiou's statement concerns the cardinality of transfinite numbers, but the point at present remains consistent with a consideration of ordinals alone. See Badiou's third appendix for further clarification on the relation of regular and singular cardinals.

⁷⁶ Though this matter is explained at length in the chapter that follows, for now it is helpful to note that this axiom was required by the need to redefine the meaning of Cantor's "collection/*Menge*" as a "set" in response to Russell's paradox.

⁷⁷ For a full account of events and forcing, see part two of chapter two.

⁷⁸ I owe my understanding of this tactic of response to a careful commentary Timothy Hyde provided to my essay "Idealism and Infinity," and so one might here construe the following response as a continuation of that dialogue.

⁷⁹ Markus Gabriel, "The Mythological Being of Reflection: An Essay on Hegel, Schelling, and the Contingency of Necessity," in *Mythology, Madness, and Laughter* (New York: Continuum Press, 2009), p. 87.

⁸⁰ The essay that I have in mind in particular is "Existence and Hermeneutics," in CI, pp. 11-31/3-24.

⁸¹ I am, of course, aware of attempts such as John Caputo's essay "Hermeneutics and the Natural Sciences: Heidegger, Science, and Essentialism" in *More Radical Hermeneutics: On Not Knowing Who We Are* (Bloomington and Indianapolis: Indiana University Press, 2000) to reconcile Heidegger's thought with the philosophy of science. What these attempts have not shown is how Heidegger could in any way be contemporary with current discussions in the philosophy of science, and not just Thomas Kuhn whose work is no longer considered a viable position. With respect to Hegel, I need only recall that the logic he embeds in his larger logic is not even "classical" Frege-Russell logic. Furthermore, he has provided no grounds for understanding the proliferation of non-classical logics within his account.

⁸² John Caputo argues just this same point in his essay "The Hyperbolization of Phenomenology: Two Possibilities for Religion in Recent Continental Philosophy" in *Counter-Experiences: Reading Jean-Luc Marion*, ed. Kevin Hart (Notre Dame, University of Notre Dame Press, 2007), 67-93.

⁸³ Antonio Calcagno in "Jacques Derrida and Alain Badiou: Is there a relation between politics and time?" In *Philosophy and Social Criticism* vol. 30. no. 7, 2004. pp. 799-815 establishes with respect to Derrida precisely the pitfalls that Badiou is able to avoid precisely because of this move. I am suggesting tentatively that a similar critique could be made with respect to Agamben's recent work.

2 Infinity and Emergence: The Case Against (Mere) Events

¹ Friedrich Nietzsche, *Götzen-Dämmerung*, vol. VI/3 of *Werke: Kritische Gesamtausgabe*, ed. Giorgio Colli and Mazzino Montinari (Berlin: Walter de Gruyter, 1967ff), p. 74f.

² Martin Heidegger, *Nietzsche, Gesamtausgabe*, Band 6.1 (Frankfurt a.M.: Vittorio Klostermann, 1996), p. 203.

³ Martin Heidegger, *The Will To Power as Art*, in *Nietzsche* vols. 1-2, trans. David Farrell Krell, (New York: Harper Collins, 1991), p. 210

⁴ See Peter Hallward's *Badiou: A Subject to Truth*. For an article that addresses, in summary fashion, the central contents of *Logics of Worlds* see Justin Clemens' essay "Had We But Worlds Enough, And Time, This Absolute, Philosopher..." in *Cosmos and History: The Journal of Natural and Social Philosophy*, vol. 2 (1-2), 2006, pp. 277-310.

⁵ See Plato's *Phaedrus* 265E.

⁶ I do not here want to review the numerous and well known short comings of Russell and Whitehead's *Principia Mathematica* (New York: Cambridge University Press, 1927). In a line I recall here that the basic difficulty facing this approach is that mathematicians and logicians both want to and do make statements that cross types. Interestingly, the problem is similar to that facing the proscription of overly large categories (e.g. the category of all groups). For an elucidation on both points, see Fraenkel, Bar-Hillel, and Levy's *Foundations of Set Theory* (North-Holland, 1973), pp. 143-4.

⁷ This statement requires a caveat, since, even as Badiou argues in *Being and Event*, the axiom of foundation is *also* necessary to ensure that the theoretical possibility of the whole is excluded (see Meditation 18). I shall demonstrate exactly how so below.

⁸ Those unconvinced that this is not a proper set, since it is nevertheless defined by an arbitrary union, may find themselves slowly pulled towards Graham Priest's conclusion that in fact the set of all sets does exist, and that there just happen to be some true contradictions. On this point one should see in particular chapter two Priests duly famous *In Contradiction: A Study of the Transconsistent* (New York: Oxford University Press, 2006).

⁹ Martin Heidegger, *Einführung in die Metaphysik*, Band 40 (Frankfurt a.M.: Vittorio Klostermann, 1983); *An Introduction to Metaphysics*, trans. Ralph Manheim (New Haven: Yale University Press, 1959), p. 76/71.

¹⁰ The reader interested in the proof can find it in *Being and Event* on pages 156-7/137-8.

¹¹ In point of fact, it is the axiom of extensionality that precludes any such relation among elements that are members of a set.

¹² Badiou does exactly this in the second appendix of *Being and Event*.

¹³ See Jean-Toussaint Desanti, "Some Remarks on the Intrinsic Ontology of Alain Badiou," in *Think Again: Alain Badiou and the Future of Philosophy*, ed. Peter Hallward (New York: Continuum Press, 2004), pp.59-66.

¹⁴ In this presentation and throughout, I have been following somewhat Robert Goldblatt's *Topoi, the Categorical Analysis of Logic* (New York: North-Holland, 1984), though I have also consulted Steve Awodey's *Category Theory* (Oxford: Clarendon Press, 2006). For Badiou's own limited description see ST pages 168-9/145-6.

¹⁵ This presentation of categories described axiomatically is taken almost verbatim (having adapted only slightly the symbolization as required for our work) from *Topoi*, pp. 24-5.

¹⁶ Badiou provides a clean and mostly non-technical account of how groups can be defined as more specific relations of categories in ST pages 169-71/146-7. This remedies the mathematical deficiency inherent to set theory.

¹⁷ The translation of "*la grande logique*" by "greater logic," as is Toscano's choice is a bit inaccurate, since the French is in no way comparative. Still, Badiou's aim here is to oppose this "logic" to what usually goes by the name of logic, which may be defined as a certain group of relations that follow from the theory of Ω -sets. Another inaccurate translation, however, may also be illuminating: the "grand logic." It may be helpful to keep this in mind since what Badiou wants to do here is propose an opposition much like Nietzsche's grand style and little style.

¹⁸ Our own exposition of these sections will be correspondingly less technical.

¹⁹ The inverse operation (wrongly translated into English as "reverse") is defined as follows. The inverse of p, written $\neg p = \Sigma\{q: p \cap q = \mu\}$ (LW 180/168).

²⁰ One might argue that while the skull does not appear, something of the skull does. If for the present purposes, one likens the point of view to a world of appearance, and an object, such as a skull, to a minimal object of appearance, then I think the analogy remains. The argument is not that nothing of the skull appears, but only that the skull as an object does not.

²¹ Translation slightly modified for readability. Also, I do not know why the English translation is not italicized for the whole portion as it is in the French. As a result, I have corrected this typographical error here.

²² As a corollary point, there would also be an envelope for the sacred realm.

²³ One may here wonder at the use of inclusion, which is a set-theoretical notion. How can Badiou make use of this notion? The answer is two-fold. First, category theory can give an account of inclusion, so that the symbol may be understood in an analogous manner to the accustomed set-theoretical version. Second, and this is a point explained below, for Badiou these categorical notions are not distinct from their ontological “base.” This is the significance of his “postulate of materialism.”

²⁴ Here I am puzzled by Justin Clemens claim that for Badiou “no relation here is prior to or external to its terms,” in “Had we but Worlds Enough,” p. 296. This statement clearly forgets both the stakes of Badiou’s philosophy and that objects are defined by categories, which are *only* relations.

²⁵ By “inaccessible” infinity here is meant a strong limit cardinal (following contemporary terminology). A cardinal is said to be a strong limit cardinal if it cannot be reached by repeated power set operations. Without additional axioms for ZFC, then, only aleph-null qualifies.

²⁶ That completeness follows from closure is the second fundamental thesis of materialism.

²⁷ The first of these is Cantor’s theorem, which shows that a power-set is always larger than its set. The technical point of interest is that one must go all the way to cardinality and transfinite recursion to understand this point correctly (i.e. meditation 26 subsection 4 of *Being and Event*), and not stop at the initial theorem in meditation seven. Otherwise one is likely to make the mistake that Giorgio Agamben makes in his assessment of Badiou’s politics, when he writes in *Homo Sacer* that Badiou’s “central category of the event corresponds to the structure of the exception” (p. 25). This is to say, Agamben takes Badiou’s event to exhibit the structure of a limit. Such a conclusion is flatly false, and it could only be made by failing to understand what the Cantorian Revolution means. The second of these proofs is, of course, Paul Cohen’s independence proof for the continuum hypothesis. Though Badiou is happy to make use of Easton’s theorem (despite its set-theoretical limits) to strengthen his point (see *Being and Event* pp. 279-80).

²⁸ This goes for the null set itself! While \emptyset has no members, it nevertheless is included within itself – though it is not, of course, a member of itself.

²⁹ *Being and Event*, pp. 99-100.

³⁰ For a full article on this incident see “D.C. to Fire 3 Over Woman’s Detention as a Man: Corrections Officers Ignored Inmate’s Protests Over Mix-Up During Arrest, Jail Processing” by David Nakamura, Washingtonpost.com, available online: <<http://www.washingtonpost.com/wp-dyn/content/article/2007/08/15/AR2007081502277.html>>

³¹ It should be noted that for Badiou, the state uses of the gender distinction *never* represent people. I have simply used Ms. Soto’s case as a clear example of what is, for Badiou, the norm.

³² See Meditation 29 of *Being and Event* for a non-technical description of these details. Or, if one prefers the thing itself, see Kurt Gödel’s essay “The Consistency of the Continuum Hypothesis,” *Annals of Mathematics Studies* (Princeton: Princeton University Press, 1940).

³³ For this statement and much of what follows, I am heavily indebted to Raymond M. Smullyan and Melvin Fitting’s extraordinary *Set Theory and the Continuum Problem* (Oxford: Clarendon Press, 1996). Though it uses NGB rather than ZF for most of its exposition, and similarly requires some previous knowledge of set theory, it is certainly the best and most direct guide to a sophisticated mathematical understanding of this topic. The major departure from Cohen’s own exposition of his non-classical forcing is the use of S4 modal logic.

³⁴ Brian Anthony Smith, “The Limits of The Subject in Badiou’s *Being and Event*,” *Cosmos and History: The Journal of Natural and Social Philosophy*, vol. 2 (1-2), 2006, pp. 134-158.

³⁵ Here I am indebted to Brian Smith’s article for this exceptionally clear example, pages 150-1.

³⁶ There is simply no fully accurate way to translate the statement, and certainly a chapter could be devoted to this issue alone. As opposed to Toscano’s translation, here is a more literal (and much less readable version): “there where I am, I am not there but to the point where I am there.”

³⁷ Translation modified.

³⁸ Translation modified.

³⁹ See Daniel Dennett “Quining Qualia” in *Consciousness in Contemporary Science*, ed. A. Marcel and E. Bisiach (New York: Oxford University Press, 1998), and Thomas Metzinger *Being No One: The Self-Model Theory of Subjectivity* (Cambridge: MIT Press, 2004).

⁴⁰ Alain Badiou, *Manifest pour la philosophie*, (Paris: Éditions du Seuil, 1989); *Manifesto for Philosophy*, trans. Norman Madarasz (Albany: SUNY Press, 1999), p. 58/61.

⁴¹ Ibid.

⁴² For more on this point, see Alenka Zupaničič's article "The Fifth Condition" in *Think Again: Alain Badiou and the Future of Philosophy* (New York: Continuum press, 2004), pp. 191-201.

⁴³ "Had we But Worlds Enough," p. 288

⁴⁴ I note here that I have followed an interpretive strategy in this chapter that has made no mention of Badiou's *Theory of the Subject*. This work, which preceded *Being and Event* does lay much of the framework for the account of the subject developed, and if there is a lacuna in the above exposition, this is it. Still, I do not think that *any* of the points made here rely on its account.

⁴⁵ For the statement on this point see chapter 18 of Priest's *In Contradiction*, entitled "Paraconsistent Set Theory."

⁴⁶ Peter Hallward, "Preface" to Alain Badiou's *Ethics: An Essay on the Understanding of Evil* (New York: Verso Press, 2001), xxxiii.

⁴⁷ Ibid., p. xxxiv.

⁴⁸ For Lakatos' clearest statement on this matter see his essay "Falsification and the Methodology of Scientific Research Programmes," in *Criticisms and The Growth of Knowledge*, ed. Imre Lakatos and Alan Musgrave (New York: Cambridge University Press, 1970), pp. 91-196.

⁴⁹ For a detailed essay on precisely this point see Gianluigi Oliveri's "Mathematics as a Quasi-Empirical Science," in *Foundations of Science* 11, (2006), pp. 41-79.

⁵⁰ Larry Laudan, *Science and Values: The Aims of Science and Their Role in Scientific Debate* (Berkeley: University of California Press, 1984), pp. 16-7.

⁵¹ I am more than slightly irritated with the continuing practice of French philosophers—and Badiou is hardly alone on this score—of equating humanity with *man*! While French does have restrictions that English does not, there is a perfectly good word in French, namely "*l'humanité*" or "humanity," that captures the appropriate notion without privileging the male gender. I see no reason for the pervasive use of "*l'homme*" save for patriarchal precedent, and that to continue to use this term with viable alternatives is to collude with such patriarchy.

⁵² I insert the word "possibly" here not to go back on my argument in the section on emergence, but to indicate that it is clearly possible that Badiou might radically alter his philosophical position to address these problems.

3 Paul Ricoeur's Infinite Hermeneutics

¹ See Edmund Husserl, "Nachwort" in *Husserliana*, vol. 5, ed. H. L. van Breda (the Hague: Martinus Nijhoff, 1952), pp. 138-62.

² One might here wonder why it is that I have not addressed what Ricoeur labels as the fourth point, namely the phenomenology of historical experience. The reasons for this are two-fold. First, I have elected here to oppose hermeneutics to idealistic phenomenology for clarity's sake, and Husserl's phenomenology in the *Crisis* exits this account of phenomenology. Second, Ricoeur here explicitly labels this point as one of "kinship" (*la parenté*) between phenomenology and hermeneutics rather than one of presupposition (FTA 68/42).

³ Jean-Pierre Changeaux and Paul Ricoeur. *La Nature et la règle: Ce qui nous fait penser* (Paris: Éditions Odile Jacob, 1998); *What Makes Us Think?: A Neuroscientist and a Philosopher argue about Ethics, Human Nature, and the Brain*, trans. M. B. DeBevoise (Princeton and Oxford: Princeton University Press, 2000), pp. 25/14-5.

⁴ It is important to note, then, that in order to take the turn to infinite thought one need not discuss Cantor's mathematics. Instead what matters is that one establish the presence of a positive moment of wager, intervention, and consequences of which Cantor's mathematical breakthrough is a paradigmatic example.

⁵ Heidegger, *Introduction to Metaphysics*, p. 52/49.

⁶ In order of the theories established, I have in mind the following thinkers. Torkel Franzén makes a strong case against *any* extra-mathematical application of Gödel's incompleteness theorems in *Gödel's Theorem: An Incomplete Guide to its Use and Abuse* (Wellesley: A K Peters, 2003). The disputes over the applications of the theorem to the mind are quite numerous, owing primarily to Turing's halting problem, which of course replays the incompleteness theorems at the level of computer science. The most current such defense is likely given by Roger Penrose in *The Emperor's New Mind: Concerning Computers, Minds, and the Laws of Physics* (New York: Oxford University Press, 2002). Against this position, stands Douglas Hofstadter's famous *Gödel, Escher, Bach: An Eternal Golden Braid* (New York: Basic Books, 1999). His point is quite simply that the theorems do not show that the human mind is fundamentally different from computers, only that our mind is a more complex formal theory. Aside from these various indirect applications of Gödel's work through Turing, Raymond M. Smullyan presents an interesting application of the theorems to the provability of arguments by their application to K, K₄, and G modal systems. One

can find an account of this in the last few pages of his excellent but somewhat technical *Gödel's Incompleteness Theorems* (New York: Oxford University Press, 1992). Finally, and perhaps my personal favorite appraisal is Graham Priest's account in chapter three of *In Contradiction: A Study of the Transconsistent* (Boston: Martinus Nijhoff Publishers, 1987).

⁷ Paul Ricoeur, *Philosophie de la volonté: Finitude et culpabilité II, La symbolique du mal*, (Paris, Aubier Montaigne, 1960); *The Symbolism of Evil*, trans. Emerson Buchanan (Boston: Beacon Press, 1967), pp. 484-5/353.

⁸ Ibid., p. 486/354.

⁹ Ibid., p. 482/351.

¹⁰ Ibid., p. 486/355.

¹¹ Ibid.

¹² Ibid., p. 483/351.

¹³ See Meillassoux, *After Finitude*, p. 25/9.

¹⁴ See for example Paul Ricoeur, *Interpretation Theory: Discourse and the Surplus of Meaning* (Fort Worth: Texas Christian University Press, 1976) p. 56.

¹⁵ Paul Ricoeur, *La métaphore vive* (Paris: Éditions du Seuil, 1975); *The Rule of Metaphor: The Creation of Meaning in Language*, trans. Robert Czerny with Kathleen McLaughlin and John Costello, SJ. (New York: Routledge Classics, 2003), p. 88-9/76.

¹⁶ Ricoeur, *Interpretation Theory*, p. 64.

¹⁷ Here I have in mind both Ricoeur's proposal on mutual recognition in response to Axel Honneth in part three of *The Course of Recognition*, and his account of gift giving as a symbolic solution to this struggle in that same work.

¹⁸ Badiou, *Ethics*, p. 74/52.

¹⁹ See in particular the last four chapters of Badiou's *Saint Paul. La foundation de l'universalisme* (Paris: Presses Universitaires de France, 1997); *Saint Paul: the Foundation of Universalism*, trans. Ray Brassier (Stanford: Stanford University Press, 2003) for this account of subjective "virtues." I note, however, that Badiou does not call them virtues by name. Rather, Badiou only discusses them as the excellences a subject must have in order to persist in fidelity to an event. Because this is so close to most discussion of virtues, I have simply applied the term that Badiou does not use.

²⁰ Badiou, *Ethics*, pp. 96-104/72-7.

²¹ Ibid., p. 26-7/11.

²² For more on this evaluation, see my "The Exterior Other: Alain Badiou and Enrique Dussel on the Future of Ethics," *forthcoming*.

²³ For the context of this phrase and a typically pellucid evaluation of the distinction between ethics and morality, see Appiah's *The Ethics of Identity* (Princeton: Princeton University Press, 2005).

²⁴ For a full account of the meaning of the term "world" please see chapters six and seven of the present text.

²⁵ For example, Ricoeur's later account of recognition in relation to attestation in the subsection "A Phenomenology of the Capable Human Being" in the second chapter of *The Course of Recognition*, trans. David Pellauer (Cambridge: Harvard University Press, 2005) never returns to the ontological aspect of this relation, leaving the ontology of recognition unaccounted for.

²⁶ Ricoeur is clearest about the ontological implications of reference for metaphor in chapter eight of *The Rule of Metaphor*. For an equally clear account see Ricoeur's essay "The Hermeneutical Function of Distanciation" in *From Text to Action*, which model of the text undergirds the account of narrative employed in *Oneself as Another*, and provides a more systematic account of the statements he makes there.

²⁷ Paul Ricoeur, *Soi-Même comme un autre* (Paris: Éditions du Seuil, 1990); *Oneself as Another*, trans. Kathleen Blamey (Chicago: University of Chicago Press, 1992), p. 346/298.

²⁸ Ricoeur, *Rule of Metaphor*, p. 297/261.

²⁹ Ibid., p. 311/292.

³⁰ Here again Ricoeur is pellucid. In the preface to the first volume of *Time and Narrative*, trans. Kathleen McLaughlin and David Pellauer (Chicago: University of Chicago Press, 1984) he writes: "Although metaphor has traditionally belonged to the theory of 'tropes' (or figures of discourse) and narrative to the theory of literary 'genres,' the meaning-effects produced by each of them belong to the same basic phenomenon of semantic innovation" (ix).

³¹ Ricoeur, *What Makes Us Think?*, pp. 25/14-5.

³² Ibid., p. 33/22.

³³ Don Ihde, *Bodies in Technology*, (Minneapolis: University of Minnesota Press, 2002), p. 50.

- ³⁴ Don Ihde, *Expanding Hermeneutics: Visualism in Science* (Evanston: Northwestern University Press, 1998), p. 140.
- ³⁵ Ibid., p. 150.
- ³⁶ Ibid., p. 152.
- ³⁷ Ibid., p. 154.
- ³⁸ Ihde, *Bodies in Technology*, p. 54.
- ³⁹ Ihde, *Expanding Hermeneutics*, p. 166.
- ⁴⁰ Ibid., p. 167.
- ⁴¹ Ibid., p. 152.
- ⁴² Ibid., p. 184.
- ⁴³ Ihde, *Bodies in Technology*, p. 47.
- ⁴⁴ Ibid., p. 48.

4 Impersonal Phenomenology

¹ The counting of models here may be a bit confusing. Recall that this is the third model following after Ricoeur's first (the symbolic) and second (the text), both of which mark the hermeneutic turn from finitude to the infinite. This is the third model of infinite hermeneutics then, and we start anew with the turn Ricoeur inaugurates.

² It is clear that Don Ihde's use of Merleau-Ponty's account of the body was undertaken for just this reason: the body serves in Merleau-Ponty as a schematizing phenomenon, and so constitutes perhaps the *only* well known phenomenological model.

³ Romano, Claude, *L'événement et le temps* (Paris: Presses Universitaires de France, 1999), p. 9.

⁴ Romano, Claude, *L'événement et le monde* (Paris: Presses Universitaires de France, 1998), p. 2. I include in this number his later collection of essays *Il y a* (Paris: Presses Universitaires de France, 2003), which, though not originally part of the project, Romano has expressed ought to be considered part of the trilogy. See the introduction of the latter text, p. 16.

⁵ *L'événement et le temps*, p. 8 and p. 3 respectively.

⁶ This point does not follow logically as stated, but given the character of eidetic intuition to which Romano seems to subscribe, it might follow with that additional presupposition.

⁷ Edmund Husserl, *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy*, trans. F. Kersten (Boston: Martinus Nijhoff Publishers, 1983), pp. 43-4/44.

⁸ This is Dan Zahavi's gloss of Husserl's statement. See his *Husserl's Phenomenology*, (Stanford, Stanford California Press, 2003), p.45.

⁹ Of course, since reaffirmation or refiguration is an integral part of this circle (openness to an event), being is equally open to revision.

¹⁰ Jean-Luc Marion. *Étant Donne: Essai d'une phénoménologie de la donation*, (Paris: Presses Universitaires de France, 1997); *Being Given: Towards a Phenomenology of Givenness*, trans. Jeffrey L. Kosky (Stanford: Stanford University Press, 2002), p. 23/14.

¹¹ In this respect it is wished that Husserl had stayed more with his thorough mathematical training that one at points finds in his work. For example, his discussion of the *Manigfaltigkeitlehre* in the *Prolegomena* to the *Logical Investigations* hints at this kind of account. Regrettably, he does not seem to have retained this insight later.

¹² Alain Badiou, *Theoretical Writings*, ed. and trans. Ray Brassier and Alberto Toscano (New York: Continuum press, 2006), p. 75.

¹³ See §23 in *Being Given* for Marion's account of mathematical phenomena as poor phenomena.

¹⁴ *Being Given*, p. 26/14.

¹⁵ This statement holds only with the number of crucial distinctions that will prove necessary even to make this approach possible.

¹⁶ Throughout this section, I have been indebted to Dan Zahavi's excellent work in the second chapter of his *Subjectivity and Selfhood: Investigating the First-Person Perspective*, (Cambridge: MIT Press, 2005). Indeed much of my understanding of the relevant discussion and articles has been guided by Zahavi's research for the present work.

¹⁷ David M. Rosenthal's "Explaining Consciousness," in *Philosophy of Mind: Classical and Contemporary Readings*, ed. David J. Chalmers (New York: Oxford University Press, 2002), pp. 407.

¹⁸ Sebastian Rödl addresses this divide quite clearly in the first chapter of his *Self-Consciousness* (Cambridge: Harvard University Press, 2007).

¹⁹ These points are made in David Rosenthal's "Explaining Consciousness," and William G. Lycan, "Consciousness and Internal Monitoring," in N. Block, O. Flanagan, and G. Güzeldere, *The Nature of Consciousness* (Cambridge: MIT Press, 1997), pp. 754-771.

²⁰ Robert Van Gulick, "Inward and Upward: Reflection, Introspection, and Self-Awareness," *Philosophical Topics*, vol. 28, (2000), p. 276.

²¹ David M. Rosenthal, "Higher-Order Thoughts and the Appendage Theory of Consciousness," *Philosophical Psychology*, 6 (1993), p. 157.

²² This position is significantly different from that of Fred Dretske, who argues in "Conscious Experience," *Mind* vol. 102 (April 1993), pp. 263-83 that alleged cases of nonconscious mental states are unconvincing. The point is not that all mental states are conscious, but that of those that are conscious some are thematically conscious and others non-thematically conscious.

²³ Jean-Paul Sartre, *Being and Nothingness: A Phenomenological Essay on Ontology*, trans. Hazel E. Barnes (New York: Washington Square Press, 1984), p. 14.

²⁴ Again, I refer the reader to section III of the introduction to Sartre's *Being and Nothingness*, where all but the last of these arguments can be found.

²⁵ This third step and reply is not clearly articulated in Sartre's work. It is for this reason that I am here making use of Zahavi's explanation in *Subjectivity and Selfhood*, p. 25. I make no pretense at originality in presenting these arguments, but present them as necessary to articulate precisely what I, as a hermeneutic philosopher, take from the phenomenological tradition. The fourth argument, however, is adapted from Zahavi's same work, pp. 25-9. In all honesty, I could not make sense of the argument as stated, and so have changed its form from that of an infinite regress to circularity. I thus bear the burden of the success or demerit of this argument.

²⁶ One should not confuse this point as a condemnation of physicist's projects to unify general relativity theory and quantum mechanics. This may well prove possible. I only argue that a total account is not possible—at least not univocally.

²⁷ Concerns about parsimony or "Ockham's Razor" are likely to arise with this suggestion. It may be good to recall two points here. First, the inclusion of additional states is not to be viewed as suspect if there are no better alternative theories that can explain the phenomena. Here pretending to do justice to first-person consciousness for the sake of "simplicity" will not actually do the work of attending to the phenomena at hand. Second, it is not at all clear that this suggestion multiplies ontological entities or complicates matters. Here I need only recall Donald Davidson's famous arguments against W. V. O. Quine on the matter of events and facts in *Essays on Actions and Events* (Oxford: Clarendon Press, 1980). My position is analogous.

²⁸ Even this statement may lead to some confusion. My argument is not only that one does not experience an "I" but also that first-person consciousness strictly speaking is ineffable *qua* experience. The character of this experience will be developed further next chapter under the topic of empirical residue.

²⁹ Jean-Paul Sartre, *The Transcendence of the Ego*, trans. Forrest Williams and Robert Kirkpatrick (New York: Farrar, Straus and Giroux, 1960), p. 39.

³⁰ *Ibid.*, p. 40.

³¹ *Ibid.*, p. 41.

³² *Ibid.*, p. 36.

³³ *Subjectivity and Selfhood*, p. 45. See also Eduard Marbach in *Das Problem des Ich in der Phänomenologie Husserls* (Den Haag: Martinus Nijhoff, 1974), pp. 77, 90.

³⁴ *Ibid.*, p. 46. Emphasis added.

³⁵ *Ibid.*, p. 131.

³⁶ *Ibid.*, p. 132.

³⁷ *Ibid.*, p. 130.

³⁸ See in particular chapter six of Metzinger's *Being No One: The Self-Model Theory of Subjectivity* (Cambridge: MIT Press, 2003).

³⁹ Derek Parfit, *Reasons and Persons*, (Oxford: Oxford University Press, 1984), p. 201.

⁴⁰ Kathleen V. Wilkes makes such a point in her *Real People: Personal Identity without Thought Experiments* (Oxford: Clarendon Press, 1988), pp. 2-6.

⁴¹ Christopher D. Firth, *The Cognitive Neuropsychology of Schizophrenia* (Hove: Lawrence Erlbaum, 1992), p. 66

⁴² Metzinger, *Being No One*, p. 334.

⁴³ *Subjectivity and Selfhood*, p. 144.

⁴⁴ Ibid., p. 76. The whole chapter is dedicated to precisely the status of reflection in phenomenology and the relation of such reflection to inner time-consciousness.

⁴⁵ Roberto Bolaño, *The Savage Detectives*, trans. Natasha Wimmer (New York: Picador, 2007), pp. 16-18.

⁴⁶ Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New York: Routledge, 1962), p. 154

⁴⁷ Ibid., p. 159.

⁴⁸ I note that this is technically inaccurate for water molecules, since it is precisely the interaction of their dipole moments that makes water a liquid at room temperature. Furthermore, depending on the size of the body of water, convection currents are also like to exist. But I trust that the general metaphoric point is grasped.

⁴⁹ Ibid., p. 184.

⁵⁰ I am here indebted to numerous discussions with Elizabeth Purcell, which allowed me to recognize the way in which the erotic pattern cannot be simply biological, in the sense that it is something we share with animals. It is on this point that I undertake to correct Lonergan's characterization of desire, hunger, and self-preservation as unified under the heading "biological pattern of experience," in *Insight*, p. 205. While our ideas were discussed in concert, she was the first to point out to me that these notions contradicted Lonergan's statements, and for this I am both thankful and give her full credit. I am also grateful that she pointed out to me that Lonergan points a more adequate account in his *Method in Theology* (Toronto: University of Toronto Press, 1971), pp. 32-3.

⁵¹ Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority*, trans. Alphonso Lingis (Pittsburgh: Duquesne University Press, 1969), p. 257.

⁵² Here I am forced to distinguish between the present account and instances of rape, which do not appear to me to be characterized by voluptuousness, but various sorts of other pathological states. While the meaningful dimension of sexuality is apparent in these acts, it appears to be used for different aims, which aims and details vastly exceed the purposes of the present investigation.

⁵³ This is not to claim that the character of inner time consciousness does not unify conscious experience in some way. I think that it does in a way that is absolutely indispensable. My point is that structures such as this tend to be reified because they stand at such a distance from individual phonological acts. I think that by focusing on patterns of consciousness, as a kind of intermediary notion, it will prove possible to resist this temptation.

5 A Phenomenology of Inquiry

¹ Translation modified.

² Translation modified.

³ Translation modified.

⁴ Translation is my own.

⁵ Throughout this section I have relied heavily on conversations with Patrick Byrne as well as access to his unpublished manuscripts on Bernard Lonergan. In particular I have made use of his chapter on "Cognitional Structure and Self-Appropriation," which I believe is forthcoming in his book *The Ethics of Discernment*.

⁶ Plato, *Meno* in *Plato Complete Works*, ed. John M Cooper, trans. G.M.A. Grube (Hackett: Indianapolis, 1997), 83c.

⁷ For this point and related matters there is still no better work than Jacob Klein's *Greek Mathematical Thought and the Origin of Algebra* (New York: Dover Publications, 1992).

⁸ *Meno*, 84a.

⁹ Ibid., 85a-b.

¹⁰ *From Text to Action*, p. 65/41.

¹¹ We must be careful to remember that this would be understood as a finite proportion for Greeks, since they had no other sense of proportions.

¹² Thomas Kuhn, *The Structure of Scientific Revolutions*, p. 56.

¹³ Ibid.

¹⁴ Bernard Lonergan, "Cognitional Structure" in *Collection* (Toronto: University of Toronto Press, 1988), p. 218.

¹⁵ "Cognitional Structure," p. 211.

¹⁶ Ibid., p. 206.

¹⁷ Ibid., p. 208.

¹⁸ Ibid., p. 206.

¹⁹ Ibid., p. 207.

²⁰ Ibid., p. 213.

²¹ Ibid., p. 211.

²² Ibid.

²³ Ibid., p. 213.

²⁴ Slavoj Žižek, *Welcome to the Desert of the Real* (New York: Verso Press, 2002), p. 61.

²⁵ Ibid., p. 58.

²⁶ Ibid., p.61.

²⁷ See Jacques Derrida's essay "Violence and Metaphysics: An Essay on the Thought of Emmanuel Levinas" in *Writing and Difference*, trans. Alan Bass (Chicago: University of Chicago Press, 1978), pp. 79-153.

²⁸ Ibid., p. 573.

²⁹ "Cognitive Structure," p. 211.

³⁰ Emphasis added.

³¹ Lonergan is quick to note that the notion of being is not empirically conscious as is the desire for hunger, and so there exists a certain disanalogy between the notion of being and the notion of hunger. Similarly, such a disanalogy obtains between the notion of a fetal eye or that of a deliberate choice and the notion of being. See *Insight*, pp. 378-80.

6 Fragile Worlds

¹ Gabriel García Márquez, *One Hundred Years of Solitude*, trans. Gregory Rabassa (New York: Harper Perennial, 2003), p. 417. Translation slightly modified.

² For Ricoeur's criticism see *From Text to Action*, p. 61.

³ Aristotle, *Nicomachean Ethics*, 1098a25

⁴ Patrick Byrne, *Analysis and Science in Aristotle* (Albany: SUNY, 1997), p.81.

⁵ Aristotle, *Posterior Analytics* (89b23-30), trans. Jonathan Barnes in *The Complete Works of Aristotle: The Revised Oxford Translation*, vol. 1, ed. Jonathan Barnes (Princeton: Princeton University Press). Translation modified.

⁶ Byrne, *Analysis and Science*, p. 86.

⁷ For a devastating critique of the problems facing phenomenologies on this score, see Johanna Oksala's excellent "Phenomenology of Gender," *Continental Philosophy Review*, no. 39 (2006): 229-244. One will note that her final suggestions to the effect that the primacy of first-person consciousness ought to be dropped were accommodated in chapter four with the Galoisian Revolution.

⁸ Though I have looked to a variety of sources for the present information, that which I have found to be the most helpful is Thomas E. Lodge's *The Everglades Handbook: Understanding the Ecosystem*, third edition (New York: CRC Press, 2010).

⁹ Marjory Stoneman Douglas, *The Everglades: River of Grass*, 60th Anniversary Edition (Sarasota: Pineapple Press, 2007).

¹⁰ Arthur Tansley, "The Use and Abuse of Vegetational Terms and Concepts," *Ecology* vol. 16 (1935), pp. 284-307.

¹¹ Lodge, *The Everglades Handbook*, p. 43.

¹² Ibid., pp. 39-41.

¹³ Gleason, Patrick, Peter Stone, "Age, Origins, and Landscape Evolution of the Everglades Peatland" in *Everglades: The Ecosystem and its Restoration*, Steven Davis and John Ogden, eds. (New York: CRC Press, 1994), pp. 149-198.

¹⁴ Lodge, *The Everglades Handbook*, pp. 52-4.

¹⁵ See chapter thirteen of Lodge's *The Everglades Handbook* for details on this point.

¹⁶ Vito Volterra's article "Fluctuations in the abundance of a species considered mathematically," *Nature* 118 (1926), pp. 558-60.

¹⁷ See "Biomass: Material Produced by the Growth of Microorganisms, Plants, and Animals," *IUPAC Compendium of Chemical Terminology* 64, (1992), p. 148.

¹⁸ I am following Lonergan's characterization of relative actual frequencies in *Insight* page 81 almost verbatim. I have decided not to quote him, however, in order that I might rephrase some of his rather terse statements, and make the language consistent with what has been reviewed in the present argument. In particular I have substituted the word "population" for "class," both because I have already covered the distinction between sets and classes in a

technical way earlier (which Lonergan does not employ in the present passage), and because that term has become standard in the literature on statistics.

¹⁹ It should be noted that Lonergan has ten headings in the related passage in *Insight*. That I have omitted two is occasioned by the difference in scope that governs the present inquiry.

²⁰ I note that the present account of statistical science has entirely omitted the role of Bayesian probability. Needless to say, this is because I think that this approach is intractably wrongheaded. There are numerous and well known difficulties in this program and the interested reader can find a handy and non-technical summary of these problems in chapter twelve A.F. Chalmer's *What is this thing called Science?* (Indianapolis: Hackett Publishing, 1999).

²¹ In what follows I have relied primarily on the work of the theoretical ecologist Robert Ulanowicz, who presents most of his findings in a sophisticated way in his *Growth and Development: Ecosystems Phenomenology* (New York: toExcel Press, 1986). Many of the examples used in what follows, however, are drawn from his popularizations found in more accessible texts.

²² This example is taken from Robert Ulanowicz, *Ecology, The Ascendent Perspective* (New York: Columbia Press, 1997), p. 62.

²³ For those interested in a detailed examination of the eight characteristics that autocatalysis exhibits, see chapter four of Ulanowicz' *Growth and Development*.

²⁴ The present example is taken from Robert Ulanowicz' *The Third Window: Natural Life Beyond Newton and Darwin* (West Conshohoken: Temple Foundation Press, 2009), p. 107.

²⁵ For those interested in a more technical explanation of the mathematics behind this calculation see Ulanowicz' *Growth and Development*, especially chapter five.

²⁶ Information taken from Ulanowicz' *The Third Window*, p. 106. Note that grounds in figure 6.4 indicate energy lost to dissipation.

²⁷ For the full case study, see C. Bondavalli and R. E. Ulanowicz, "Unexpected Effects of Predators Upon their Prey: The Case of the American Alligator," *Ecosystems* 2 (1999), pp. 49-63.

²⁸ Eugene Odum lists twenty-four observed attributes of ecosystem development in "The Strategy of Ecosystem Development," *Science* 164 (1969), pp. 262-70.

²⁹ I take these stages, as I have taken much else, from chapter four of Ulanowicz' *Ecology*.

³⁰ One should recall that the heart of biological development follows from the presence of DNA, which was nowhere appealed to in the foregoing account of ecosystems.

³¹ The heart of this update concerns the shift from Lonergan's account of conditioned series schemes of recurrence to autocatalysis. Because Lonergan did not make use of propensities in his account, and because he could not make use of the contemporary scientific account of ascendancy (first published in scientific journals in 1980), his account differs from the present one on numerous details about the calculations of emergence. Nevertheless, I think that the present account is in line with his larger points concerning generalized emergent probability.

³² I am thankful to the simplification of terminology suggested by Joseph Flanagan's discussion of this topic in *Quest for Self-Knowledge: An Essay in Lonergan's Philosophy* in chapter four of that work. I have adapted it to the present discussion.

³³ In broadening Lonergan's account to ecosystems, it seemed necessary to change the name of the genetic heuristic structure in order to avoid confusion. Ecosystems lack genes, and while "genetic" might still be correct etymologically, the term seemed to me to risk too much confusion.

³⁴ To jump ahead of the present exposition, the appropriate term here is "finality."

³⁵ See *Insight*, pp. 489-91 for a detailed account of the matter.

³⁶ These points are addressed in detail in *Insight*, pp. 145-7.

7 Human Worlds

¹ One may read about the extent to which the two philosophers thought they agreed and the actual extent to which they agreed in the third chapter of Hubert L. Dreyfus and Paul Rabinow's *Michel Foucault: Beyond Structuralism and Hermeneutics* (Chicago: University of Chicago Press, 1983).

² Paul Ricoeur, *Interpretation Theory: Discourse and the Surplus of Meaning* (Fort Worth: Texas Christian University Press, 1976). It is noteworthy that all these essays, save for the third, were written in English, and so express the extent to which Ricoeur was here reaching out to the Anglo-phone world on the matter of language.

³ William H. Calvin and Derek Bickerton, *Lingua ex Machina: Reconciling Darwin and Chomsky with the Human Brain* (Cambridge: MIT Press, 2000), p. 49.

⁴ I am here rather closely following John Searle's account in his *Making the Social World: The Structure of Human Civilization* (New York: Oxford University Press, 2010), pp. 63-4.

⁵ Ricoeur, *Interpretation Theory*, pp. 8-12.

⁶ I think that it is this point that is the most central lesson to be learned from Ricoeur's esteem of the moment of iconic augmentation (Ibid., pp. 40-44).

⁷ While the examples are all mine, I have largely adapted this list from John Searle's suggestion in his *Mind, Language, and Society: Philosophy in the Real World* (New York: Basic Books, 1998), p. 139. I find it noteworthy, however, that Searle does not find a place in his list for what Ricoeur would call symbolic meaning, which is (4).

⁸ An excellent compendium on this topic has been published rather recently entitled *Absolute Generality*, eds. Augustín Rayo and Gabriel Uzquiano (New York: Oxford University Press, 2006).

⁹ It is, of course, a matter of debate concerning what this "actual truth" might be.

¹⁰ Ricoeur, *Philosophie de la volonté II: Finitude et culpabilité* (Paris: Aubier, 1960), p. 480.

¹¹ The present scenario is an extrapolation from John R. Searle's work on social reality as can be found in chapter five of *Mind, Language, and Society: Philosophy in the Real World* (New York: Basic Books, 1998) and *The Construction of Social Reality* (New York: The Free Press, 1995).

¹² The way of explaining this structure is something that I have taken from Joseph Flanagan's *Quest for Self-Knowledge: An Essay in Lonergan's Philosophy* (Toronto: University of Toronto Press, 1997), p. 70.

¹³ Searle also argues that there are background capacities, but for the present discussion it will not be a problem to omit these features, since Searle himself treats them in that way.

¹⁴ *The Construction of Social Reality*, p. 24

¹⁵ This point, of course, does not preclude the fact that each of the actors must come to know that the other has that belief through what are likely subtle and complex gestural signals.

¹⁶ *The Construction of Social Reality*, p. 25.

¹⁷ *Mind, Language and Society*, p. 122.

¹⁸ *The Construction of Social Reality*, p. 27.

¹⁹ Ibid., p. 28.

²⁰ Ibid., p. 44.

²¹ Ibid., p. 80.

²² Ibid., p. 84.

²³ Ibid.

²⁴ For one of the best statements of this matter see Michael Potter's *Set Theory and its Philosophy* (New York: Oxford University Press, 2004).

²⁵ *The Construction of Social Reality*, p. 47.

²⁶ Ibid.

²⁷ Ibid., p. 92.

²⁸ I do not mean to reduce all accounts of development to ethical and political decision. To be precise there are two ways in which human civilization may be taken to develop. First, there is the mode in which anthropologists are interested. It is well known that pre-historic cultures tended to be hampered by lack of sophisticated hunting technology, or later a sustained area for agriculture. In these cases, there are conditions such as human language and basic political institutions that must be in place for later more complex forms of society to emerge. The second mode of development concerns matters such as whether there ought to be more regulation for trade, or whether each citizen of a country is entitled to social security. These latter are more strictly ethico-political. Yet, both may be understood as development by the genetic heuristic structure, since in both cases conditions are analyzed that make possible later forms of social reality.

²⁹ Michel Foucault, *Society Must be Defended: Lectures at the Collège de France 1975-1976*, trans. David Macey (Picador: New York, 2003), p. 24.

³⁰ Ibid., 34. It should be noted that in fact Foucault understands himself as elaborating what disciplinary power is at this point. Still, in *The History of Sexuality: An Introduction* vol. 1, trans. Robert Hurley (Vintage Books: New York, 1978) p. 139 Foucault conceives of biopower as having two poles, one of which is disciplinary power. So it is not amiss to understand these statements as applying to biopower as well.

³¹ *History of Sexuality*, p. 92.

³² *Society Must be Defended*, p. 30

³³ *Ibid.*, p. 33.

³⁴ *Ibid.*, pp. 138. I prefer the mature formulation in the *History of Sexuality* for a schematic presentation over the earlier and more poetic formulation of “‘make’ live and ‘let’ die” in the final lecture of *Society Must Be Defended*, because it establishes the productive role of biopower more clearly while also establishing biopower’s distance from death—which is only a limit (p. 241).

³⁵ *History of Sexuality*, p. 136.

³⁶ *Society Must Be Defended*, p. 36.

³⁷ *History of Sexuality*, p. 135.

³⁸ *Society Must Be Defended*, p. 249.

³⁹ *Ibid.*, 243.

⁴⁰ *Ibid.*, 246.

⁴¹ *History of Sexuality*, p. 139.

⁴² Agamben, *Homo Sacer: Sovereign Power and Bare Life*, trans. Daniel Heller-Roazen (Stanford: Stanford University Press, 1998). While I disagree heartily with Agamben concerning his solution, I do credit him with first posing the question clearly.

⁴³ This is why, in his 1978-1979 lectures at the Collège de France, gathered under the title of *The Birth of Biopolitics*, eds. Michel Senellart and Arnold I. Davidson, trans. Graham Burchell (New York: Palgrave Macmillan, 2008) Foucault argues that the *de facto* limitations imposed on the *raison d’État* form of government occurs by “transaction” (p. 12). This is to say, it occurs through the interaction of other powers, and not at the behest of legislators and governors.

⁴⁴ Bruno Latour, for example, tends towards the very particular and so stand in stark opposition to Heidegger’s approach to technology, which tries for the one unifying sense. See Latour’s *Aramis, or the Love of Technology* (Cambridge: Harvard University Press, 1996) as an example of his analysis of the French Aramis transit project.

⁴⁵ Miguel de Beistegui makes this point marvelously clear in the fourth chapter of his *The New Heidegger* (New York: Continuum Press, 2005).

⁴⁶ Martin Heidegger, “The Question Concerning Technology,” in *The Question Concerning Technology and Other Essays*, trans. William Lovitt (New York: Harper Perennial, 1977), p. 17.

⁴⁷ Heidegger makes this connection explicit in numerous places, and he even characterizes the form of reasoning he is after as “cybernetics.” Probably his clearest statements on this matter are to be found in his *Zollikon Seminars: Protocols, Conversations, Letters*, ed. Medard Boss, trans. Franz Mayr and Richard Askay (Evanston: Northwestern University Press, 2001). See in particular July 9, 1964, May 14, 1965, and November 23, 1965.

⁴⁸ This is a point that even patient philosophers, such as Don Ihde, have missed. For example, in his essay “Philosophy of Technology as Hermeneutic Task,” *Expanding Hermeneutics: Visualism in Science* (Evanston: Northwestern University Press, 1998), he refers to a stick as an item of technology (pp. 44-8).

⁴⁹ It must be noted that I am following up a suggestion Lonergan makes in a quite different context in *Phenomenology and Logic*, ed. Phillip J. McShane (Toronto: University of Toronto Press, 2001), especially in the first five chapters.

⁵⁰ See Geoffrey Hunter’s *Metalogic: An Introduction to the Metatheory of Standard First-Order Logic* (Berkeley and Los Angeles: University of California Press, 1971) sections 7-8, and 52 for a readable account of Church’s thesis and Church’s theorem.

⁵¹ I am undecided whether Church’s thesis would hold for the broad range of application that I have in mind. Some suitable adjustment might be possible along the lines of Graham Priest’s formalization of English semantics in the third chapter of his *In Contradiction* (New York: Oxford University Press, 2006). The problem is that Church’s thesis holds for formal theories, with formal languages, and clearly my account of technique is intended to hold for social reality (which at the very least has no formal language). Without some kind of formalization *pace* Priest, then, it is of course possible to identify technique with the *intuitive* notion of a decision procedure, but not the one that gives it the fullest rigorous definition.

⁵² Foucault, *The Birth of Biopolitics*, p. 10.

⁵³ In this account of bureaucracy I am following quite closely the account Lonergan provides in “Social Alienation and the Second Enlightenment” in *A Third Collection*, found on pages 60-5.

⁵⁴ For a detailed account, see how Drew Evan Fenton, MD writes up his article “Acute Coronary Syndrome: Treatment & Medication” at <http://emedicine.medscape.com/article/756979-treatment>. Note in particular how he both makes use of statistical analysis *and* strict outlines for treatment to achieve results.

⁵⁵ This was Robert Ackermann's title in his essay "The New Experimentalism," *British Journal for the Philosophy of Science* 40 (1989), pp. 185-90.

⁵⁶ Octávio Bueno and Mark Colyvan, for example, in their "Logical Non-Apriorism and the 'Law' of Non-Contradiction" in *The Law of Non-Contradiction: New Philosophical Essays*, eds. Graham Priest, JC Beall, and Bradley Armour-Garb (New York: Oxford University Press, 2004), pp. 156-175, still continue to take the account as a viable one for explaining revolutionary change. They use Laudan's reticulated model precisely to explain the possibility of the kind of revolutionary change occasioned by paraconsistent logics and especially dialetheism in particular.

⁵⁷ Ian Hacking, *Representing and Intervening: Introductory Topics in the Philosophy of Natural Science* (New York: Cambridge University Press, 1983), p. vii.

⁵⁸ Laudan, *Science and Values*, pp. 62-6.

⁵⁹ For Hacking's wonderful account of the development of statistical science, see his now classic *The Emergence of Probability: A Philosophical Study of the Early Ideas about Probability, Induction and Statistical Inference* (New York: Cambridge University Press, 2006).

⁶⁰ On this point in particular, see Laudan's "Dissecting the Holistic Picture of Scientific Change," which is chapter four of *Science and Values*.

⁶¹ Hacking has made this argument in many places. See, for example, chapters six and seven of *Historical Ontologies* (Cambridge: Harvard University Press, 2002) or chapters four and eight in his *The Social Construction of What?* (Cambridge: Harvard University Press, 2000).

⁶² Lynn Hunt, Thomas R. Martin, and Barbara H. Rosenwein, *The Making of the West: Peoples and Cultures* (Boston: Bedford/St. Martin's, 2009), p. 685.

⁶³ Dostoyevsky, *Notes From the Underground*, trans. Mirra Ginsburg (New York: Bantam Books, 1974), p. 41.

⁶⁴ Critchley, *Infinitely Demanding: Ethics of Commitment, Politics of Resistance* (New York: Verso Press, 2007), p. 5.

⁶⁵ Palahniuk, *Fight Club* (New York: W.W. Norton, 1996), p. 141.

8 Existence and History

¹ Christopher Columbus, *The Journal of Christopher Columbus (During His First Voyage, 1492-93): And Documents Relating to the Voyages of John Cabot and Gaspar Corte Real*. Ed. and Trans. Clemms R. Markham (New York: Cambridge University Press, 2010), p. 23.

² Reliable statistics on this score are always burdened by lack of evidence. These numbers were taken from Nobel David Cook's *Born to Die: Disease and New World Conquest 1492-1650* (Cambridge: Cambridge University Press, 1998), pp. 1-11. Even the lowest estimates, however, seem to suggest that half of the native population died.

³ Owen J. Flanagan, *The Really Hard Problem: Meaning in a Material World* (Cambridge: MIT Press, 2003).

⁴ The piece is noteworthy for its literary value, since it won the 1971 Quinto Sol award and has subsequently been made into a motion picture, which also went on to win several awards.

⁵ Tomás Rivera, "... y no se lo tragó la tierra/ ... And the Earth did not Devour him," trans. Evangelina Vigil-Piñón (Huston: University of Huston Press, 1987), p. 90.

⁶ Giorgio Agamben in "The Passion of Facticity" in *Potentialities: Collected Essays in Philosophy*, ed. and trans. Daniel Heller-Roazen (Stanford: Stanford University Press, 1999), pp. 185-204 has argued that an account of love is present in *Being and Time*, if one understands properly what facticity means. The problem, I think, is that Agamben is equivocating rather than defending Heidegger on this point. While it may be possible to argue that facticity has a certain structure that is similar to St. Augustine's account of love (if more fundamental), the charge is that Heidegger never thematically treated love in any of the usual senses and it is not clear how he would have. In the best case, what Agamben has done is provide grounds for understanding a sense of love as an extension of Heidegger's account of facticity, but it just is not the case that Heidegger himself makes this point.

⁷ See Charles Taylor's *The Ethics of Authenticity* (Cambridge: Harvard University Press, 1991), pp. 35-7 for his account of the matter. Interestingly Isaiah Berlin makes a similar point in his duly famous essay "The Pursuit of the Ideal" anthologized (among other places) in *The Proper Study of Mankind: An Anthology of Essays* (New York: Farrar, Straus and Giroux, 1997), pp. 1-16.

⁸ To my mind, the reason Heidegger could not solve the problem of the relation of personal existential meaning to historical existential meaning is because he did not have an account of collective intentionality, or that what account he did have (e.g. his statements on the German *Volk*) were not adequately formulated.

⁹ See especially the first chapter of Žižek's *The Ticklish Subject: The Absent Center of Political Ontology* (New York: Verso Press, 1999).

¹⁰ The obvious exception here is personal meaning, which, unlike Heidegger, I think can totally escape a historical epoch. This matter, however, clearly requires an account of human personhood, so I leave this dimension of the human condition for the second volume of the present work.

¹¹ Paul Ricoeur, *Temps et recite: Le temps raconté* vol. 3 (Paris: Éditions du Seuil, 1985); *Time and Narrative*, vol. 3, trans. Kathleen Blamey and David Pellauer (Chicago: University of Chicago Press, 1988), p. 375/208.

¹² *Ibid.*, p. 376/208.

¹³ *Ibid.*

¹⁴ *Ibid.*, p. 377/209.

¹⁵ *Ibid.*, p. 389/215.

¹⁶ *Ibid.*, p. 390/216.

¹⁷ Dussel is, of course, better off than some. Nevertheless, it is the case that he is living in Mexico as an exile from Argentina. He was forced to flee after assassination attempts, which destroyed his home and library.

¹⁸ The Bergsonian objection, namely that philosophers have failed to think time adequately because they always end up determining their accounts in terms of space, only makes the present point stronger. For Bergson the *goal* is to truly think time. It is a *failure* that philosophers have thought only spatially. Dussel's point is that philosophers ought to try and think of space philosophically.

¹⁹ Comparison taken from Branco Milanovic, "True World Income Distribution, 1988 and 1993: First calculations based on household surveys alone," World Bank Development Research Group, November 2000, p. 30.

²⁰ To allay any doubts about Habermas' complicity, see Dussel's own collection of his statements in chapter one of *Ética de la Liberación en la Edad de la Globalización y la Exclusión*.

²¹ Enrique Dussel, *Ética de la Liberación en la Edad de la Globalización y la Exclusión*, p. 50. Translations are my own. Dussel is clear that he takes the term from Immanuel Wallerstein, but he adapts it to his own purposes in such a way that one risks equivocation if one were to equate their respective uses.

²² *Ibid.*, p. 220.

²³ *Ibid.*, p. 69.

²⁴ The words "new world" are in quotations, since what is designated was clearly not new to the native inhabitants of pre-Colombian America, and so belies the obvious Eurocentrism of the terms.

²⁵ *The Invention of the Americas: Eclipse of 'the Other' and the Myth of Modernity*, trans. Michel D. Barber (New York: Continuum press, 1995), p. 95.

²⁶ Despite the numerous advances made since the publication of his work *Guns, Germs, and Steel: The Fates of Human Societies* (New York: W. W. Norton and Co., 1999) Jared Diamond's point on this matter (pp. 49-50) remains unchallenged. No one has found evidence of serious civilization before this period in the Americas.

²⁷ Beyond the fact that this account is too brief, it should be noted that Dussel has modified his account of modernity to include two phases or two modernities if you will. The first modernity is accounted for here. In his essay 'World-System and "Trans"-Modernity', *Neplanta: Views from the South* 3:2 (2002), Dussel argues that in light of recent historical research on the status of China it is necessary to conclude that world hegemony was in fact not possible before the industrial revolution. This means that the preeminence of Europe is not much more than two-centuries old. The research does not, however, invalidate the claims made here or those of Dussel's larger trans-modern project against Eurocentric postmodernism.

²⁸ Conditions and emergence, crucially, are not equivalent. This equation, however, is not required in order to assent to Dussel's general point that "modernity" would not have been possible without this exclusionary domination. Furthermore, the world-system, as the establishment of a series of relations that connected all major peoples of the world, that is to say all the formerly inter-regional systems, was clearly established in 1492 with the encounter.

²⁹ "The 'World-System,'" p. 105.

³⁰ Dussel's point is that it is *manipulative* technology that is the critical problem, not technology *per se*.

³¹ *The Invention of the Americas*, pp. 26. In his essay "The Architectonic of the Ethics of Liberation: On Material Ethics and Formal Moralities," *Philosophy and Social Criticism*, 23 (3), 1997, pp. 15-6 (hereafter: "Architectonic of Ethics") Dussel draws an explicit distinction between his criticism of reason and that of discourse ethics as proffered

by Apel and Habermas. While the latter two authors seek to criticize instrumental reason and preserve the other aspects of reason, Dussel argues that the real source of the problem is to be found in dominating reason, of which such instrumental or simplifying reason is only a part.

³² For a complementary piece in which I flesh out the relation of Dussel's space to Ricoeur's thought, see my *Space and Narrative, or Enrique Dussel and Paul Ricoeur: The Missed Encounter, Philosophy Today* (forthcoming Fall, 2010).

³³ This is an argument Lonergan makes in his essay "Dimensions of Meaning" found in *Collections* (Toronto: University of Toronto Press, 1993), pp. 238-9.

³⁴ See Charles Taylor's *A Secular Age* (Cambridge: Harvard University Press, 2007), p. 20.

³⁵ Heidegger, "Building, Dwelling, Thinking," in *Poetry, Language, Thought*, trans. Albert Hofstadter (Harper Collins, 1971), p. 149.

³⁶ *Ibid.*, p. 157.

³⁷ Edward Casey, *Getting Back Into Place: Towards a Renewed Understanding of the Place-World* (Bloomington, Indiana University Press, 2009), p. 109.

³⁸ I owe this insight into the character of *who* builds entirely to a discussion with Elizabeth Purcell, who has a forthcoming essay on the matter, and to which I am much indebted on this score.

³⁹ I have found Johanna Oksala's "Phenomenology of Gender," *Continental Philosophy Review* 34 (2006), pp. 229-44 extremely helpful on these matters.

⁴⁰ See my essay "Phenomenology of a Photography, or How to Use an Eidetic Phenomenology," *PhaenEx* (Forthcoming).

⁴¹ This is of course just the major point of Henry's *Material Phenomenology*, trans. Scott Davidson (New York: Fordham University Press, 2008).

⁴² Marion, *In Excess: Studies in Saturated Phenomena*, trans. Robyn Horner and Vincent Berraud (New York: Fordham University Press, 2002), p. 87.

⁴³ Franz Fanon, *Black Skin, White Masks*, trans. Charles Lam Markmann (New York: Grove Press, 1967), p. 109.

⁴⁴ The interesting point here is that Husserl certainly suffered on account of what today we would call his Jewish ethnicity, though what at the time might have been called his Jewish racial origins. Nevertheless, he seems to have entirely avoided this point in his phenomenological studies of embodiment. I do not know what to make of this omission, and perhaps some complementary scholarship could be done make sense of this tension.

⁴⁵ Merleau-Ponty, *Phenomenology of Perception*, p. 98.

⁴⁶ *Ibid.*, p. 146.

⁴⁷ Casey, *Getting Back Into Place*, p. 48.

⁴⁸ Husserl, *Thing and Space: Lectures of 1907*, trans. Richard Rojcewicz (Boston: Kluwer Academic Publishers, 1997), p. 66.

⁴⁹ Casey, *Getting Back Into Place*, p. 73.

⁵⁰ Gaston Bachelard, *The Poetics of Space*, trans. Maria Jolas (Boston: Beacon Press, 1994), xxxv.

⁵¹ *Ibid.*, 13.

⁵² *Ibid.*, 3.

⁵³ Bennett Alan Weinberg, *The World of Caffeine: The Science and Culture of the World's Most Popular Drug* (New York: Routledge Press, 2002), pp. 3-4.

⁵⁴ It is important to note that whatever reconciliation is achieved in that work, it is only gained by beginning from the perspective of the *polis* and by subordinating in a totalitarian way the goods of individuals, and especially the class known as the guardians.

⁵⁵ This is how I understand Lonergan's comments in *Insight* page 248. I do not think that bias alone is the source of dialectic, but that it only heightens the problematic.

⁵⁶ By a "tragic" situation here, I mean a situation in which one is forced to choose between two highest goods, which are incommensurable, so that what is lost is not only irrecoverable by other means, but also absolutely worth achieving on its own. In short, I have in mind a rather Hegelian sense of tragedy.

⁵⁷ Lonergan notes a fourth bias, namely dramatic bias. This bias affects the individual subject, however, and since the present inquiry prescind from this matter, I shall not address this bias here.

⁵⁸ Paul Ricoeur, *Soi-Même comme un autre* (Paris: Éditions du Seuil, 1990); *Oneself as Another*, trans. Kathleen Blamey (Chicago: University of Chicago Press, 1992), p. 213/182.

9 Metaphysical Hermeneutics: On Emergence

¹ Aristotle, *Metaphysics*, book Gamma, section 2, 1003a33.

² Ibid.

³ This debate has continued for quite some time. As a recent defense of this notion see Benedict Ashley's *The Way Towards Wisdom: An Interdisciplinary and Intercultural Introduction to Metaphysics* (Notre Dame: University of Notre Dame Press, 2006), pp. 343-7.

⁴ As a note with respect to the critique of ontotheology, Merold Westphal in "Overcoming Onto-theology" in *Overcoming Onto-Theology: Toward a Postmodern Christian Faith* (New York: Fordham University Press, 2001), pp. 1-28 has argued that one of the critical aspects of Heidegger's concern was that God was *used* epistemically to fill in the gaps of reason. The present account, then, hardly supports such a notion, since it holds that there are aspects of the universe that simply cannot be understood. Appeal to God cannot be made to "fill in" these gaps in knowledge.

⁵ One might recall that strictly speaking *Ereignis* can happen without humans, but it must always be understood with respect to *Da-Sein* even for Heidegger's later work (*Contributions to Philosophy* §11). This is the sense in which even Heidegger's later work does not escape Meillassoux' critique, which I broached in the first chapter.

⁶ For those who are concerned that I might have just travestied Ricoeur's or Lonergan's theological commitments by foreclosing the possibility that to God (or a god) these sorts of Events might have a truth, I recall that the present essay is methodologically atheist. It is philosophical in a very strict sense, and inquires after matters only as they pertain to what it can conceivably be claimed humans know, understand, and perform.

⁷ Natural catastrophic Events are not such that they are mourned, since this operation is something that occurs only with the existence of social existential reality. If a star several million light-years away from the Earth's sun is obliterated, this may be considered a catastrophic Event, but it is not something that humans would mourn unless it were somehow of existential importance to us.

⁸ I am thankful to a discussion with Patrick Byrne for the formulation of this point.

⁹ The present formulation is taken from Peter Petersen's *Riemannian Geometry* (New York: Springer Press, 2006), p. 2.

¹⁰ One may wonder at the sufficiency of this suggestion to account for quasi-Riemannian spaces, but I propose that these may be understood as quasi-spaces just in the sense that the generalization beyond Riemannian spaces qualifies these spaces.

¹¹ I have prescind from the topic of quantum space and time for a number of reasons beyond the matter that the issue is quite technical. To begin, the possibility remains that general relativity physics and quantum mechanics might be integrated by some higher view point. In such a case, the present account will have to be updated, but will likely retain a relative amount of accuracy, such that the omission is perhaps not terribly pressing. Additionally, there are a number of rather peculiar matters concerning the interpretation of quantum mechanics, whether one takes an orthodox approach, the Copenhagen approach, or any number of the other competing schools with their proposed interpretations. Even in the case of a possible radical departure, at least the relation of such new space and time to my present account of mathematical space and time will remain the same, which again diminishes the significance of addressing quantum space and time independently. Finally, the present account is a corrigible one, so that I would welcome intelligent correction.

¹² See for example chapter eleven Oliva Blanchette's *Philosophy of Being: A Reconstructive Essay in Metaphysics* (Washington, D.C.: Catholic University of America Press, 2003), in which he discusses substance as "being-in-itself in becoming." The periphrasis here is occasioned by Blanchette's awareness of the multiple critiques of substance that would commit it to the problems of a pre-critical philosopher, such as Descartes.

¹³ An excellent review of Heidegger's critique specifically as it affects metaphysical topics can be found in Jean-Luc Marion's "*Saint Thomas d'Aquin et l'onto-théo-logie*," *Review Thomiste* 95 (1995), pp. 36-65.

¹⁴ Heidegger of course makes this argument in multiple places, but one of the most accessible is perhaps the discussion to be found in his essay "On the Essence and Concept of *phusis* in Aristotle's *Physics* B, I" in *Pathmarks*, ed. William McNeill (New York: Cambridge University Press, 1998). The crux of the discussion is to be found on pages 329-30/198-200.

¹⁵ This is his argument exactly concerning the second transcendental illusion in the conclusion to *Difference and Repetition*, trans. Paul Patton (New York: Columbia University Press, 1994), p. 266.

¹⁶ Lonergan in fact opposes “things” to “bodies,” and avoids the term “substance” altogether, since there are so many exegetical complexities concerning the use of this latter term. Nevertheless, since “substance” is the object of these three critiques, I have chosen to retain its use. For “substance” as the object of these critiques is not strictly equivalent to Lonergan’s account of “bodies” as a subsection of reality as the “already out there now” (I 276).

¹⁷ I might note additionally that I do not see why exactly it follows that if difference is subordinated to sameness, then radical change is not possible. Apart from equivocating on the word same, Deleuze’s argument appears to turn on a reductionist fallacy: that if the basic elements of world-process are characterized in terms of non-process, then their complex relations with each other will exhibit the same characteristics. But that point only follows if one does not allow for the kind of complexity characteristic of our universe. In any case, Deleuze’s argument is at least incomplete on this point.

¹⁸ Clearly, because the sense of each use follows from a different description, they can never be meant together. One or the other must always be intended, so that any argument that turns on their equivocal use is fallacious.

¹⁹ This notion is one that the theoretical physicist Lee Smolin in conjunction with the Brazilian philosopher Roberto Mangabeira Unger have recently pursued as an alternative to the more popular multiverse account. For a lay review of Smolin’s position see his article “The Unique Universe,” in *Physicsworld.com* at <http://physicsworld.com/cws/article/print/39306>. For Unger’s account see especially chapter six of *The Self-Awakened: Pragmatism Unbound* (Cambridge: Harvard University Press, 2009).

²⁰ If I depart from Lonergan, I doubt many will consider my work to be so radical a departure as to constitute an exit from the tradition in which he works. My hope is that the present work will be taken as a development rather than some kind of sabotage.

²¹ In Lonergan’s “The Ongoing Genesis of Methods,” in *A Third Collection: Papers by Bernard J. F. Lonergan* (New York: Paulist Press, 1985) he refers to a “generalized empirical method” rather than cognitional structure, and while there is some difference between the two formulations, those differences are not germane to the present discussion (p. 150). As a result I have treated them synonymously.

²² For those interested in a textbook from which it might be possible to learn what is at stake in Priest’s Logic of Paradox and First-Degree Entailment, the best source undoubtedly is Priest’s own *An Introduction to Non-Classical Logic: From If to Is* (New York: Cambridge University Press, 2008).

²³ This is the form of argument one finds in so-called Aristotelian Thomism. In *The Way Towards Wisdom* Ashley makes an argument to this effect in chapter three.

²⁴ On the present matter I have found John Sallis’ work on Heidegger’s *Contributions* in his *The Verge of Philosophy* to be an invaluable guide.

²⁵ This statement may not appear to the reader to be self-reflexively consistent. I argue, however, that the claim concerning “in principle” is to be understood only relative to the present account. For those concerned that I might have just rescinded my claim on the absolute (what is), I stress again that I do hold that our thought and the present account in particular reaches what is (being) if corrigibly. Perhaps the present account “revisability” or “probably true judgments,” might be significantly revised—even Eventually. That newer account would at least retain what was true of the present one, so I have in no way rescinded my claims either to revisability or to probably *true* judgments.