

Valences of Interdisciplinarity

Cultural Dialectics

Series editor: Raphael Foshay

The difference between subject and object slices through subject as well as through object.

—Theodor Adorno

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Valences of Interdisciplinarity: Theory, Practice, Pedagogy

Edited by Raphael Foshay

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Theory, Practice, Pedagogy

Edited by
RAPHAEL FOSHAY



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*Dedicated to the memory of
Paul Nonnekes (1961–2010),
friend and colleague*

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Introduction

Interdisciplinarity, for What?

RAPHAEL FOSHAY

What compartmentalized disciplines project on to reality merely reflects back what has taken place in reality. False consciousness is also true: inner and outer life are torn apart. Only through the articulation of their difference, not by stretching concepts, can their relation be adequately expressed.

Theodor W. Adorno (quoted in Jameson, *Valences of the Dialectic* 55)

This collection of essays on interdisciplinarity arises from a 2008 symposium, “The Scope of Interdisciplinarity,” sponsored by Athabasca University and its MA program in Integrated Studies (MA-IS). Athabasca University is Canada’s open university, and MA-IS is an interdisciplinary program that spans the full range of social science and the humanities disciplines.¹ The purpose of the symposium was straightforward: to bring together leading scholars of interdisciplinary work in order to explore the range of ways that interdisciplinarity finds expression in thinking, research, and teaching and to measure its valences. It was intended from the beginning that the papers presented at the symposium would form themselves into the present volume, and I am pleased to present them here and to offer a preliminary reflection on the broad, in many respects amorphous, but certainly pervasive, issues presented by the decisive trend in recent decades toward interdisciplinary research, study, and teaching. The MA-IS program is an expression of these trends, and those

of us teaching in the program welcome this opportunity to engage in closer conversation with the leading edge of thought on interdisciplinarity.

In the following introduction, I attempt to set the debate surrounding interdisciplinarity in a certain historical, disciplinary, and theoretical context. Such a large and foundational topic does not easily lend itself to adequate “introductory” comment. Since general overviews of the situation that has given rise to intensive reflection on interdisciplinarity are now sufficiently numerous (e.g., Klein 1991; Frodeman 2010a, 2010b; Moran 2010; Stehr and Weingart 2000; Kagan 2009), I have tried to pursue in the following a line of reflection on what seem to me the primary concerns driving our engagement with interdisciplinarity. In asking what is and should be motivating our practice of and reflection on interdisciplinarity (“Interdisciplinarity, for what?”), I point out that this question comes to us from (at least) two quite different directions, one internal to academic life and one external—although my point is that these locations and sets of priorities are not simply opposed. They are not even two. The point is that they are one and the same, or that until they come into active engagement with each other—an engagement fully social, political, and economic, as well as intellectual and even personal—the potential and the prerogatives of interdisciplinarity will not be fully or adequately plumbed.

I

In 1784, in a short essay for the *Berlinische Monatsschrift* titled “Answer to the Question: What Is Enlightenment?” Kant responds to the question posed to him by the editor in what would become, and has especially been confirmed in recent decades as, an iconic essay in the context of debates surrounding the issues of enlightenment, modernity, authority, knowledge/power, and the role of critical reflection in their ramifications (see Schmidt 1996). Kant reflects: “If it is asked ‘Do we now live in an enlightened age?’ the answer is ‘No, but we do live in an age of enlightenment’” (Kant 1996, 62). Kant was at considerable pains in this short piece to address the relation between enlightenment’s two dimensions of responsibility: toward the citizen himself in the full exercise of his (and, in the eventual and inevitable logic of enlightenment, her) freedom and

toward the individual's role in the community, which, in Kant's case, as he explicitly addresses in the essay, means under the rule of the "enlightened" but absolute monarchy of Frederick the Great. Thus, Kant was concerned to draw the necessary boundary between what he calls the public and the private exercise of enlightened reason—between, on the one hand, the free exercise of self-determination and responsibility on the part of the individual in the public sphere (as an individual citizen) and, on the other, the constraints placed on those in public office to uphold state policy under a monarch who, while honouring learning and creative expression, had no reservations about the exercise of his absolute authority in social and political life. Thus, Kant's qualified reply—we do not live in an enlightened age, but we do live in an age of enlightenment—has a social and political force. Kant dwells on the "almost paradoxical" tension between civil and spiritual freedom: "A lesser degree of civil freedom, in contrast, creates the room for spiritual freedom to spread to its full capacity" (63).

This was an especially pointed distinction in Kant's setting, given the issues at stake with regard to enlightenment. If, as Kant emphatically declares in this essay, "*Enlightenment is mankind's exit from its self-incurred immaturity*," then to be enlightened is, quoting Horace, to "dare to know." "*Sapere Aude!*" Kant admonishes: "Have the courage to use your own understanding! is thus the motto of the enlightenment" (58). The spirit of such affirmations of the freedom and rights of the individual, of course, underwrote the American and French revolutions, so if enlightenment was to be affirmed in the context of Frederick's absolutist regime, then some very clear partitions had to be set up between those realms where freedom of expression could safely be exercised and those in which the authority of the crown had to be obeyed incontrovertibly. Here, in this essay, and later in *The Conflict of the Faculties*, Kant attempts to establish clear parameters for free public speech and debate and, within the university, for the right of academic freedom in the context of the university's social responsibility.

With the publication of *Religion Within the Limits of Reason Alone* (1793), Kant's own exercise of free inquiry in the religious sphere incurred the anger of Frederick the Great. Threatened with punishment if he wrote further on religion, Kant agreed to remain silent on the issue:

With an oath of loyalty to his sovereign, Kant promised to desist, but after the death of this king in 1797 he regarded himself as freed from this promise, and the next year issued his most spirited defense of intellectual freedom yet, *The Conflict of the Faculties*. Here Kant argued that while the theological faculty might have the obligation to advance certain dogmas approved by the state, it was nothing less than the official function of the philosophical faculty to subject all views to rational scrutiny; and in any case, a government genuinely concerned with its people's welfare would not want them to base their morality on fear or dogma but only on the free exercise of their own reason. (Guyer [1998] 2004)

It was a disciple of Kant, Wilhelm von Humboldt, who redesigned the modern university around his teacher's call for the enlightened self-determination of the modern citizen, directing the university toward the formation not of a leisured elite but of self-cultivating and socially responsible working citizens of a qualifiedly but increasingly democratic society. As Steve Fuller points out in *The Sociology of the Intellectual Life* regarding Humboldt's key role in establishing the pattern of the modern university:

Humboldt founded the modern university with the liberally educated citizen in mind. From that standpoint, knowledge production was presumed to be "always already" interdisciplinary. Disciplines as we currently know them—corresponding to departments, journals, and dedicated graduate degree programs—only gradually emerged. (2009a, 24)

There are varying narratives of the date of emergence and rate of development of the modern disciplines and their expression within the university. Fuller, for instance, puts it well into the twentieth century before disciplines become clearly defined, autonomous entities, with their professional associations:

People who we now so clearly call physicists, chemists, biologists, physicians and even engineers were quite hard to distinguish for most of the nineteenth century. The same applied even more strongly in

the so-called non-natural sciences. Moreover, sophisticated surveys of academic knowledge up to the first third of the twentieth century presupposed this murky and fractious process of disciplinarization. (2009a, 24)

Peter Weingart, however, with an optic focused less on the university context, locates this process earlier, in the nineteenth century, with the transition from a science generated by observation of the given world to one focused on experimentation within controlled settings:

The emergence of disciplines in the modern sense, which took place around 1800, implied the shift from occasions arising externally to science for the collection of experience and data to problems for research generated “within” science itself. This meant that the judgment of relevance also became subject to the control by the respective groups of scholars. Their language became gradually more specialized and removed from everyday language. (Weingart 2010, 6)

For Weingart, “The essence of discipline formation and evolution is self-referential communication. . . . The evaluation of relevance and quality of research is limited to the members of the respective disciplinary community” (8). In this sense, he points out, disciplines function very much as guilds, engaged in professional self-regulation, promotion, and advocacy for research funding (9).

How one periodizes the emergence of disciplinarity depends very much on whether one is looking at the disciplines as free-standing professional scholarly associations or at their expression in the modern university, within their respective faculties and departments—in other words, on whether one is examining them in relation to the broader society and economy or in relation to the overall mission of the modern university, as conceived by Humboldt. In either case, there is a tension between the role of the intellectual as representative of the Enlightenment project to foster the free exercise of reason in society (the role protected and fostered by academic freedom in the university and free speech in society), on the one hand, and, on the other, the impulse to form increasingly professionalized communities focused on peer-reviewed inquiry along approved or

at least internally recognized and authorized lines of investigation. These two perspectives are clearly in no way exclusive of one another but are rather highly interdependent. In some cases, academic and professional associations are closely identified with the university community, as is true for most humanities disciplines, while, in the case of the sciences and even more so in professional fields such as engineering and law, such associations participate more widely in developments across society and the economy. The necessary and even inevitable narrowing of the focus of research—ever more specialized investigation, expressed in increasingly professionalized terminologies designed to enable ever more precise and refined observation—leads to a distancing of research from the teaching and disseminating function of the university within its institutional vocation in wider society, conceived as it is by Humboldt, after Kant, as a project of enlightenment, that is to say, of individual and social emancipation and maturation of free and responsible citizens.

The explosion of knowledge over the past century, fostered by the growth of expert, highly specialized categories of disciplinary expertise, has led the university further and further from its public vocation conceived in enlightened and democratic terms and, in an environment of neo-liberal economization, into a service role that is increasingly oriented more toward social and political values and concerns than toward economic, technical, and indeed technological expansion. Whether amounting to an axial shift or simply constituting a pervasive drift, the focus, structure, and vocation of the university as an academic and social institution is responding, as it must, to the overall forces and patterns of an increasingly globalized economization of contemporary life. With two such variant agendas contending for the space and future direction of the university, raising the question of disciplines and their relation to one another calls for attention to the context and intent of the questioning: Disciplinarity, for what? Interdisciplinarity, for what? What are the purposes to which academic disciplines in general ought to be directed? And what should therefore motivate the impulse toward interdisciplinarity?

Fuller provides an impressive synoptic overview of the context of reflection on disciplinarity and interdisciplinarity:

The ideal governing . . . William von Humboldt's reinvention of the university in early nineteenth-century Germany . . . aspires to a form of knowledge that is "universal" in both its potential applications and its potential appliers. Over the last half century, this ideal was recast as serving the welfare state's dual economic function of subsidizing capitalist production (research) and redistributing its surplus (teaching). Not surprisingly, while the universities magnified in size and significance during this period, the welfare state's recent devolution has thrown them into financial and wider institutional uncertainty. . . . The recent drive to have universities mimic business firms as generators of intellectual property amounts to no less than a campaign of institutional dismemberment, in which the university's research function is severed from its teaching function. (2009a, 4–5)

In such a context of potential "institutional dismemberment," the question of academic disciplines and their interrelations takes on an import that calls for careful reflection. That the challenge of interdisciplinarity has been at the forefront in recent decades hardly needs emphasis. Sufficient to indicate the full and canonical status of the debate is the recent appearance of *The Oxford Handbook of Interdisciplinarity* (2010).² It's editor-in-chief, Robert Frodeman, in an introduction to the volume of modest length (given the almost 600 pages of the volume itself), nonetheless ambitiously asserts the rights of the topic of interdisciplinarity to "challenge the academic status quo": "At its best, interdisciplinarity represents an innovation in knowledge production—making knowledge more relevant, balancing incommensurable claims and perspectives, and raising questions concerning the nature and viability of expertise. (2010a, xxix)"

Such an impulse clearly accords with the teaching function of the modern university, and in "challenging the academic status quo" Frodeman invokes for interdisciplinarity the foundational critical function that inheres in the Kantian enterprise. Strikingly, Frodeman describes the *Handbook* as "herald[ing] the centrality of philosophic reflection for twenty-first century society," since "interdisciplinarity is inherently philosophical, in the non-professionalized and non-disciplined sense of the term" (xxxi), constituting "an implicit philosophy of knowledge—not an 'epistemology' but rather a general reflection on whether and to

what degree knowledge can help us achieve the perennial goal of living the good life” (xxxii). Frodeman contrasts such a general Enlightenment conception of philosophy as overall critique with the narrow, professionalized, and highly technical conduct of the discipline of philosophy as it has historically evolved. In terms surely now familiar to all humanist academics, he reproaches the humanities in general for their adoption of an analytic model of disciplinary knowledge that amounts to an abrogation of their historic vocation as bearers and disseminators of enlightened knowledge (xxxii).

If indeed, as Fuller affirms, the modern university, in Humboldt’s vision, is “‘always already’ interdisciplinary” (2009a, 24), then the call to interdisciplinarity might be expected to arise first within the university itself. Instead, both Fuller and Frodeman suggest that the contemporary call for interdisciplinarity derives largely from historico-political and economic forces arising in the aftermath of World War II. The impetus, Frodeman suggests, “was in the first instance extra-academic in origin. As knowledge production expanded, with much of it since World War II funded by public funds, demands for accountability have grown. The assumption of a linear or automatic connection between knowledge and social benefit has given way to sharp questions about the usefulness of knowledge” (2010a, xxxi). While generally agreeing, Fuller gives to this narrative a more precise delineation:

As disciplinary boundaries hardened in the twentieth century, intellectual gaps between the disciplines began to emerge as blind spots, which interdisciplinary work could then be explicitly dedicated to redress. The Cold War motivated much of this thinking, as national security issues focused academic minds on both sides of the communist-capitalist divide to organize themselves as a unified whole. In this context, operations research, systems theory, and artificial intelligence began to portray the existence of disciplines as obstacles to efficient knowledge flows. (2009a, 24)

As both Frodeman and Fuller suggest, the “blind spots” resulting in the hermetic intensification of disciplines were identified not within the academy, as presenting challenges to its own priorities, but rather from

within the social, economic, and political arena, where the question of the value of knowledge is subject to more pragmatic and frankly ideological criteria.

That the push against disciplinary autonomy and discreteness should have come, in Fuller's view, largely from Cold War-driven "operations research, systems theory, and artificial intelligence" indicates that interdisciplinarity is caught up in broader developments in computerization, the transformation of communications networks, and their current stage of digitalization, all of which have transformed the context of early twenty-first-century society, politics, and economics in the direction of what can in shorthand be termed "globalization." At the heart of this transformation is Information Technology (IT)—what operations research, the former cybernetics, and artificial intelligence have largely enabled. When we talk about being "caught up" in these transformative developments, Carl Mitcham suggests why that feeling is not illusory:

A related phenomenology of human engagement would observe how the being of IT differs from tools and machines. Unlike tools (which do not function without human energy input and guidance) or machines (which derive energy from nonhuman sources but still require human guidance), information technologies are in distinctive ways independent of the human with regard to energy and immediate guidance; they are self-regulating (cybernetic). . . . Insofar as the operation of more electronically advanced IT is subject to human guidance, guidance ceases to be direct or mechanical and is mediated by humanly constructed programs (electronically coded plans). What is the ontological status of programs? What are their relations to intentions? (2004, 331)

Mitcham makes the point more sharply in summarizing the reflections on IT of Albert Borgmann: "Borgmann insightfully distinguishes between information about reality (science), information for reality (engineering design), and information as reality (the high-definition representations and creations emerging from IT)—and further the increasing prominence, glamour, and malleability of information as reality is having the effect of diminishing human engagement with more fundamental realities" (331).

Unquestionably, although all institutions of society are in a process of transformation resulting from the impact of IT, it might be said that, because of its direct concern with knowledge and information, the university is in some respects more caught up and transformed by IT than some others. In another sense, because the university is necessarily directly involved with aspects of the development and application of IT, it is perhaps so close to these developments as to persist in a certain state of distraction or delayed reaction in relation to IT. The globalized and globalizing proliferation of IT is sweeping everyone willy-nilly into an entirely transformed social and political matrix, one that is clearly in mid-process and the results of which are not yet possible to foresee. What we *can* see is that the process raises fundamental questions as to what we are about in the university. As Mitcham asks: What are the relations between computer programs and our intentions, our aims, our purposes? And, as we are asking here: Disciplinarity/interdisciplinarity—for what? Frodeman probes the philosophical principles upon which we should base interdisciplinary inquiry, arguing that fundamental critical reflection is implicit in the interdisciplinary enterprise. If we are all being carried rapidly toward an unforeseeable future driven by an IT that raises fundamental questions about our individual and social control and the direction in which this control is moving, then Kant’s concerns for our autonomy and independence of judgment are troubled by the sweeping embrace of our own technological power and ingenuity. “*Immaturity*,” Kant writes, “is the inability to make use of one’s own self-understanding without the guidance of another. *Self-incurred* is this inability if its cause lies not in the lack of understanding but rather in the lack of the resolution and the courage to use it without the guidance of another” (Kant 1996, 58).

A striking instance of the manner in which technology is driving new interdisciplinary configurations is the converging technologies initiative, the key document for which is Mihail Roco and William Bainbridge’s *Converging Technologies for Improving Human Performance: Nanotechnology, Biotechnology, Information Technology, and Cognitive Science* (2003). As Steve Fuller points out in his report on this movement, “There is an ongoing struggle between the US and EU to define the direction given to the idea of ‘converging technologies (CT) for improving

human performance,” the above report constituting what he thinks is an indication that the “the US is winning this struggle, at least at the level of ideology” (2009b, 1). Fuller points out that the agenda for CT is not new but rather is continuous with the commitment to genetic engineering driven by such funding agencies as the Rockefeller Foundation as early as the 1930s. However, the emergence of nano- and info-technologies has opened up new vectors of research that have fundamentally shifted the dominant model of the practice of science from a physical to a chemical world view, entailing what Fuller considers to be “profound metaphysical implications.”

The dominant model of physics revolved, Fuller says, around the distinction between “natural” and “nominal” kinds, that is, between the actual existence of things in nature and, alternatively, our predilection for naming them in ways useful to us. With the turn to a micro-biologically influenced chemical world view, however,

it may be more appropriate to distinguish between *virtual* and *real* kinds, the latter understood as multiple realizations of the former. This marks a radical shift in the ontological focus of scientific inquiry. In particular, “nature” is cast as only a subset of all possible realizations (i.e., only *part* of the “real”), as opposed to something inherently “other” or “independent” of whatever humans might name or construct. Once again this perspective is familiar from the chemical world-view, in which, say, the difference between “natural” and “synthetic” fibres lies entirely in the history of their production and their functional properties, but not in terms of the metaphysical priority of one to the other, since both the “natural” and “synthetic” are composed of the same fundamental stuff—and the latter may indeed count as an *improvement* over the former. By extension, “mind” and “life” lose the metaphysical mystique associated with their natural origins and come to be assessed simply in terms of the properties possessed by their realizations—be they human, carbon-based, silicon-based, or some cyborgian mixture. (2009b, 18)

Fuller points out the eugenic force of the CT Initiative “for improving human performance.” Such a turn away from a clear distinction between

“natural” and “artificial’ or “humanly made” enables human beings to be seen “not as ends in themselves but as means for the production of benefits, be it to the economy or to ‘society’ more diffusely understood” (2009b, 22). As Fuller observes, the ideological struggles to define the direction of CT “are less over the desirability of enhancement *per se* than the form it takes” (2009b, 20), with the US taking a “proactionary” and the EU a more “precautionary” approach. Both approaches, he warns, entail some significant ambiguities. In the case of US, these bear on the supposed “benefits” and also the unforeseeable longer-term effects of genetic or cyborgian enhancement of performance. In the case of the EU, the ambiguities revolve around the emphasis on the effective “marketization” of research for economic benefit, that is to say, on the improvement of performance on a socio-economic front. Fuller glosses the CT agenda “as a ‘technological fix’ for the second of two fiscal crises of the welfare state that has affected both sides of the Atlantic.” The first crisis, of the 1970s, emerged in response to the increasing tax burden posed by post-war social welfare policy. The second arose in the 1990s in connection with the “anticipated financial burden on the pension system of people living longer after retirement. CT is relevant to this development, as it promises—in both its US and EU guises—a longer period of labour productivity, expanding the economy in general and deferring the need for individuals to draw on pensions” (2009b, 7–8).

I cite these details of Fuller’s interpretation to underline the socio-economic policy imperatives that are driving aggressive state support of interdisciplinary initiatives. “Aggressive” is not too strong a word. As Fuller points out, “technological convergence” is not understood as mere interdisciplinary co-operation:

For technologies to converge, they must do something more than simply engage in “synergy” or “multi-,” “inter,” or even “transdisciplinarity.” . . . Convergence implies that formerly distinct lineages come to lose some, if not all, their differences in a moment of synthesis. This is much stronger than the simple idea that different disciplines share some things in common. For convergence, such commonality must also cause the disciplines to see their interests as more closely aligned, so that they come to orient their patterns of work to each other. (2009b, 8–9)

As Fuller suggests, especially when genetic, or eugenic, experimentation is overdetermined by a perceived sense of economic, social, and (of course) political urgency, when it comes to responding to the philosophical and ethical implications of these research initiatives, ethical values are placed in a distinctly reactionary posture. As he observes: “The Abrahamic or Kantian idea of humanity as a species-being in possession of its own integrity and autonomy (aka ‘dignity’) is largely relegated to ethical ‘side constraints’ for the conduct of research” (2009b, 22).

How, in the face of such technological, ideological, and economic pressure and momentum, does one mount a sufficiently forceful, penetrating, and (necessarily) interdisciplinary research and teaching effort in the university, one able to address the gravity of the issues inherent in such unquestionably important—not to mention inevitable—research and public policy issues as are represented by the likes of the converging technologies initiative? That would be the question, it seems to me, for research projects and conference gatherings like the one that produced the essays gathered in this volume. But before I turn to a discussion of the individual contributions to the interdisciplinary debate collected here, I would like to return for a moment to my initial departure point in Kant’s concern with the question, “What is Enlightenment?” I do so in light of Robert Frodeman’s call for a more thoroughgoing theoretical and philosophical reflection on interdisciplinarity and also in light of Steve Fuller’s observation about the embattled position of ethic values, at least on the pragmatic, genomic-technological end of the spectrum of forces currently driving the embrace of interdisciplinarity within and across the university and society at large. However fraught with problematic rationalism one may consider Enlightenment principles to be, and no matter what similarly fraught and ambiguous ethical perspectives (whether sacred or secular) one may bring to bear, the fact remains that Enlightenment values are being accorded a distinctly subordinate place in the primary debates.

I would like to suggest that, in light of Jonathan Israel’s groundbreaking work on the history of the Enlightenment, we need to take to heart his forceful argument that we have misunderstood the sources of the most critical and commanding Enlightenment values and their trajectory in the course of historical developments down to and including our own time. Regardless of whether one considers oneself an advocate or a critic

of Enlightenment principles and values, Israel's argument needs to be absorbed and evaluated, not least in relation to the issues of the academy and of interdisciplinarity engaged in the present volume. In three penetrating studies in European intellectual history (2001, 2006, 2010), Israel makes a persuasive argument, supported by a detailed and wide-ranging examination of the debates and social movements contributing to the Enlightenment tradition, to the effect that there are two main strains of Enlightenment thinking, a radical and a moderate, or conservative (in addition, of course, to the obvious third, the counter-Enlightenment strains of outright resistance). Regarding the former, he observes:

In recent years historians and philosophers have made rapid strides in uncovering the main stages and the general history of the Radical Enlightenment. An originally clandestine movement of ideas, almost entirely hidden from public view during the earliest phase (the late seventeenth century), and maturing in opposition to the moderate mainstream Enlightenment dominant in Europe and America in the eighteenth century, radical thought burst into the open in the 1770s, 1780s, and 1790s during the revolutionary era in America, France, Britain, Ireland, and the Netherlands, as well as in underground democratic circles in Germany, Scandinavia, Latin America, and elsewhere. Radical Enlightenment is now widely seen as the current of thought (and eventually political action) that played the primary role in grounding the egalitarian and democratic core values and ideals of the modern world. Radical Enlightenment is a set of basic principles that can be summed up concisely as: democracy; racial and sexual equality; individual liberty of lifestyle; full freedom of thought, expression, and the press; eradication of religious authority from the legislative process and education; and full separation of church and state. (2010, vii–viii)

The moderate Enlightenment is represented by thinkers like Voltaire, Locke, Hume, and Kant who opposed the radical implications of the above principles in the work of Spinoza, Bayle, Diderot, and d'Holbach, adopting instead an ameliorationist position in relation to tradition and authority (as represented by the argument we observed Kant making in "Answer to the Question: What Is Enlightenment?"). Radical Enlightenment

resisted the kind of dualism that runs through the thought of Descartes and Kant—a position that enables Kant to advocate such a fatally compromised principle as Frederick’s “*Argue as much as you want and about whatever you want, only obey!*” (Kant 1996, 63). As Israel underlines:

Throughout the Enlightenment’s history it is this irresolvable duality—the metaphysical dichotomy of one-substance doctrine (Spinozistic monism) and two-substance dualism, the latter as upheld by John Locke . . . and Voltaire, as well as other providential Deists and (most) Christians and Jews—that was always the principal and overriding factor shaping its course. (2010, 18)

Although my necessarily compressed summation of Israel’s argument may make it appear that he is a practitioner of an entirely abstract and outmoded history of ideas, he in fact mounts a considered counter-argument to the materialist direction of leading trends in intellectual history over the past few decades (see Israel 2006, 15–26). Indeed, as Frodeman does for interdisciplinarity and Fuller for science and technology studies, Israel does for intellectual history, and in a manner that returns us to the core debate over the nature and significance of the Enlightenment—its historical shape and its social ramifications. As he points out, “where the radical thinker Condorcet, looking back on the Enlightenment’s achievements from the standpoint of 1793, deemed it certain not just that ‘philosophy’ caused the French Revolution but that only philosophy can cause a true ‘revolution’. . . —this challenging and important proposition remains for most contemporary readers a remote and deeply puzzling idea” (Israel 2006, 13).

In framing the question of the purpose and intention of interdisciplinarity (“Interdisciplinarity, for what?”), I have argued, in line with Frodeman and Fuller, that interdisciplinarity necessarily returns us to fundamental questions of priority and value in social and intellectual life. As Frodeman suggests, interdisciplinarity is “the newest expression of a very old question,” the one regarding “the perennial goal of living the good life” (2010a, xxxii). By beginning with Kant and ending with Israel, I will suggest that the pressing call for interdisciplinarity within the academy (Frodeman) and in the economy (Fuller) calls for a fundamental

reevaluation of Enlightenment values. In a passage worth quoting at length, Israel clearly and summarily launches all of the issues, intellectual and historical, social and political, that seem to me to be entailed in our questioning of the direction of the academy at present:

Due to the leanings of much recent historiography, as well as the anti-historical orientation of twentieth-century Anglo-American philosophy, the modern reader investigating the rise of “modernity” as a system of democratic values and individual liberties in the Enlightenment encounters a bewildering and curious paradox. For the crucible in which those values originated and developed—the Radical Enlightenment—has not only, until recently, been very little studied by scholars but at the same time confronts us with a major philosophical challenge in that its prime feature is a conception of “philosophy” (and indeed of “revolution”) from which, during the course of the nineteenth and twentieth centuries, western liberal thought and historiography, especially in the English-speaking world, managed to become profoundly estranged. Part of the difficulty, in contemporary Britain and America, is that philosophy’s proper zone of activity has come to be so narrowly conceived to be a marginal, technical discipline which neither does, nor should, affect anything very much, let alone define the whole of the reality in which we live, an approach which firmly places “philosophy” at the very opposite end of the spectrum from the Radical Enlightenment’s (and indeed Marx’s and Nietzsche’s) conception of “philosophy” as discussion of the human and cosmic condition in its entirety, the quest for a coherent picture, the basic architecture, so to speak, of everything we know. (2006, 13)

I cannot quite end with Israel, however, in his invocation of a “human and cosmic” unity as the goal of a philosophically informed grasp of radical Enlightenment values and interdisciplinary interdependencies. We are beyond resting easy in such unities, and, with Fredric Jameson, I am more comfortable in engaging the question, “Interdisciplinarity, for what?” as a theoretical rather than a philosophical one. As Jameson importantly reminds us:

This is why the dialectic belongs to theory rather than philosophy: the latter is always haunted by the dream of some foolproof, self-sufficient, autonomous system, a set of interlocking concepts which are their own cause. This mirage is of course the afterimage of philosophy as an institution in the world, as a profession complicit with everything else in the status quo, in the fallen ontic realm of “what is.” Theory, on the other hand, has no vested interests inasmuch as it never lays claim to an absolute system, a non-ideological formulation of itself and its “truths”; indeed, always itself complicit in the being of current language, it has only the never-ending, never-finished task of undermining philosophy as such, of unraveling affirmative statements and propositions of all kinds. (2009, 59)

II

This collection of essays organizes itself in accordance with the three main arenas of interdisciplinary scholarship: theory, practice, and teaching. It is no accident, of course, in light of the reflections in section I of this introduction, that the opening section on interdisciplinary theory is the longest of the three. Attempting to grasp the parameters of a changed orientation to so fundamental and constitutive an institution of academic and societal intellectual life as disciplines requires basic reflection on the historical, institutional, and theoretical rationales that shape and govern them. Change in the structures and approaches to disciplinarity constitutes change in the university and the wider intellectual community, and the question of how, and on what suppositions, that change should be measured is preliminary to accurate assessment of its significance, implications, and valuations. Reflection on what we do as academics and public intellectuals is one of the attractions and benefits of the rise of interdisciplinarity in that it brings new perspectives and energies to bear on reflective efforts that too easily remain shaped by established patterns of thinking and criticism. The essays in this collection are intended to keep that necessary reflection alive on what we do as intellectuals, researchers, and teachers.

Part One: Theory

As if to round off the foregoing discussion of the work of the intellectual historian Jonathan Israel and the critical theoretical corrective of Fredric Jameson, we begin with another intellectual historian, Martin Jay, whose seminal study of the Frankfurt School early in his career heralded the interdisciplinary focus of his many important ensuing studies of modern culture, a flow of scholarship that has shown no signs of abating. In keeping with some of the concerns expressed above regarding the source and nature of certain of the prevailing pressures toward interdisciplinarity, in “The Menace of Consilience” Jay pursues a corrective emphasis on the nature of disciplinarity and a cautionary attitude toward specific strains of the current pursuit of interdisciplinarity within the academy. He begins by reminding us that, while we recognize that academic disciplines are historical and social constructions, at the same time “the weakening of disciplinarity . . . may lead us down a slippery slope into intellectual incoherence—or perhaps what is worse, an extorted and sterile super-coherence.” It is such a coercive or even facile “super-coherence” that Jay sees exemplified in Edward O. Wilson’s model of “consilience.” Rather, Jay suggests, we need a more nuanced and historically and institutionally informed understanding of disciplines, their formation and their formative influence—an influence that, precisely because of its historical and social range, is neither univocal nor so simply and easily turned to transdisciplinary purposes as conceptual categories and apparent logical consequences may lead us to assume. Against the rationalizing of transdisciplinary univocity, Jay recommends the multivocity of metaphorical models and analogical patterns as more appropriate ways to do justice to the complexity of disciplinary formation and ongoing formative influence, aiding us in “the drama of negotiating and renegotiating the sometimes fragile, sometimes resilient boundaries of those cultural practices we call disciplines.”

In “The Telos of the Good Life: Reflections on Interdisciplinarity and Models of Knowledge,” Ian Angus continues an ongoing reflection on interdisciplinarity, emphasizing in this essay the institutional inertia that makes interdisciplinary change much less pervasive than the wide expression of interdisciplinary intentions. Like Jay, Angus has roots in the Frankfurt School, and he writes here from his experience in conducting

interdisciplinary research in a climate then resistant to such non-discipline-specific work. He, too, cautions against the dangers of uncritical interdisciplinarity, citing the twin pitfalls of superficial eclecticism, on the one hand, and, on the other (a point also implicit in Jay's critique of consilience-style models of transdisciplinarity), the reversion to pre-modern models of a unity of knowledge that "would re-establish in a modern form the totality of knowledge that pre-modern science accomplished under the umbrella of religion. To anticipate, my defence of interdisciplinarity will not rest upon such a figure of unification." Angus displays an insight into the workings of disciplinarity wrought by first-hand experience in interdisciplinary research. He points to the ways in which disciplinary formations guide research questions and are in turn challenged by the findings that emerge, reminding us that those disciplinary formations themselves emerged from challenges to earlier traditions of inquiry. The key point of reference in Angus's exploration of interdisciplinarity is the centrality of the mix of, and tension between, rational and rhetorical elements in interdisciplinary argumentation, that is, between disciplinary academic and non-disciplinary life experience—between concern with the truth, on the one hand, and with the social good, on the other, the latter an inherently qualified and quality-related concern with a lifeworld that does not lend itself to determinate expression in truths. With a balance and subtlety characteristic of his work, Angus echoes the concerns expressed earlier in this introduction, emphasizing that "the radical potential of interdisciplinary studies revealed by its contact with non-disciplinary knowledges is the revival in contemporary form of the classical role of knowledge as enlightenment, thinking for oneself, as a component of a good life."

In "Interdisciplinary Models and Dialectical Integration: A Proposed Model of Integrated Interdisciplinarity," Wendell Kisner offers two models for conceptually framing the integration of diverse academic disciplines within a context of interdisciplinarity and, in keeping with his pursuit of integration, goes on to argue that these two models can themselves configure an "integrated interdisciplinarity." As he reminds his reader, Kisner pursues interdisciplinarity very much as a disciplinary philosopher, and his two models are broadly Heideggerian and Hegelian in type. He argues, however, that interdisciplinary integration occurs at the level of practice. In his view, the actual work of integrating different disciplines has to be

carried out in a pragmatic field rather than a purely theoretical one: it is not a task that can be exhaustively prescribed in advance by any theory. In an integration of theory and critical practice, Kisner pursues his integration of Heideggerian interdisciplinary ensembles and Hegelian dialectical integration through a further development of the work of Gregory Schufreider on the artist Piet Mondrian, proposing a suggestive model of “reciprocal hierarchy” that infuses structure with sets of dynamic rather than static relations.

In “Globalization and Higher Education: Working Toward Cognitive Justice,” Diana Brydon resituates Angus’s Enlightenment-tradition concerns with the “good life” in the context of twenty-first-century realities of globalization and its postcolonial and “decolonizing” reconfiguration of the contemporary lifeworld. Bringing academic research into relation to the life experience of those caught up in globalization, Brydon emphasizes the inherent politicization of research in the context of globalizing processes and transformations in economic, social, technological, and communicational patterns that cross traditional disciplinary, social, and national frontiers. The role of knowledge and research in the technologically driven developments associated with globalization results in an intensification and proliferation of knowledge-types and their imbrication with global economic expansion. Noting that, as knowledge becomes increasingly economized, it necessarily becomes increasingly politicized and ethicized as well, Brydon invokes Bonaventura de Sousa Santos’s concern with “cognitive justice” as a key issue of globalization. As she explains, “I use ‘cognitive justice’ to refer to the goals of reciprocal knowledge production based on dialogues across differences and attempts to compensate for power differentials in the interests of promoting social justice.” Having herself been led from her disciplinary base in English studies to postcolonial studies and now to concerns with globalization, Brydon remains driven by Enlightenment concerns as logically implicated in globalization: “As an educator, I am especially interested in determining what kinds of pedagogies and curricula are needed to educate citizens about globalization, citizenship, and culture and increasingly convinced of the value, indeed necessity, of international partnerships to achieve these goals.” In reconfiguring notions of “citizenship” and the role of education in the context of globalization, Brydon has progressed from a

concern with academic disciplines to an engagement with “the dialogues developing across various knowledge networks within the social, political, and cognitive justice movements.” Like “cognitive justice,” “knowledge networks” is a term that reveals the ways in which the relation between academic, technical, and lifeworld knowledges are being actively transformed by the globalization process, with the result that existing disciplinary formations prove to be inadequately equipped to handle the complexity of emerging technologically and economically driven developments. Brydon helpfully situates us within the ethical and political implications and debates unfolding with the exponential restructurations associated with globalization.

In my own contribution to this collection, I focus on one of the root principles of inquiry in the Western tradition, the Law of Non-Contradiction (LNC) and its central role in the logic of disciplinary identity formation and maintenance. In providing a necessarily brief overview of this very large issue, I point to the significant challenges posed to the LNC by modern theory. Such challenges have arisen, I suggest, for many of the same reasons that we find it increasingly necessary to think not only within but also between, across, and in some realms quite beyond disciplinary canons.

Julie Thompson Klein is a leading voice in the debates surrounding interdisciplinarity. In contribution to this volume, she brings her thorough knowledge of the field to bear on the challenges of orienting ourselves within the categorical and disciplinary semantics of humanistic disciplinary transformation, on the one hand, and of the new impulses toward an integration of disciplines overall and the direct accession to unitary forms of transdisciplinarity, on the other. Klein guides us through both humanistic and transdisciplinary developments over recent decades. She points to the strengths and weaknesses of interdisciplinary developments in humanities fields such as cultural studies, which have brought with them a valued synthesis of perspective in some areas and a dangerous elision of crucial cultural and artistic specificity in others. In turning to the more encompassing concerns of movements of unification associated with transdisciplinarity, Klein charts the developments in this domain, providing a helpful taxonomy of its broader forms and again pointing to strengths and dangers that accompany such unifying ambitions.

Rick Szostak, a fellow member, with Julie Klein, of the Association for Integrative Studies (<http://www.units.muohio.edu/aisorg/index.shtml>), takes up several of the challenges identified by Klein in pointing to the availability of a much greater integrative potential across the humanities and social sciences than appears in the current debates in these domains. Szostak argues that we have remained too bound by disciplinary vocabularies, methodologies, and problematics and that, beneath apparent heterogeneities of thought and practice, a much greater similarity exists than has hitherto been recognized. He offers constructive clarifications of competing discursive and analytic approaches, arguing that, when observed from a more inclusive perspective, the methods, research strategies, and analytic terminology characteristic of the humanities and social sciences reveal a certain uniformity that suggests possibilities for integration..

Part Two: Practice

Lorraine Code's "Ecological Thinking as Interdisciplinary Practice: Situation, Silence, and Skepticism" appropriately opens the section on interdisciplinary practice with a philosopher's attention to the theoretical and epistemological ramifications of interdisciplinary work. With her emphasis on the epistemological implications of embodied and gendered thinking, embedded as she sees them within their natural and social lifeworlds, ecological thinking becomes a logical extension of the life of the mind and thereby an expression of the inherently synergistic relationship of disciplinary and research traditions. As with Brydon's concern with "cognitive justice," Code emphasizes the necessity of "doing epistemic justice" and the concomitant need to depart from traditions of thought that reinforce invidious hierarchies and power relations across species that share natural and social environments. Her "ecological naturalism," rooted in pragmatic realism and a skepticism regarding the infallibility of empirical method—exemplified in the work of Rachel Carson—is a source of an integrative inquiry into the common lifeworld, in its co-inhabitation by all races and species. Code explores an illustrative instance of the restorative and constructive effects of such ecological thinking in her example of a health services project in Tanzania in the 1990s, demonstrating how ecological interdisciplinary thought and method work in practice to generate epistemic justice.

In his study of Michael Haneke's films, Jan Jagodzinski adopts a cultural practice of critique diametrically opposed to Code's ecological thinking. Rather than reflect, as do Brydon and Code, on a changed interdisciplinary context of inquiry, Jagodzinski offers a terminologically and conceptually innovative analytical category from which to view Haneke's genre-elusive film corpus. "Self-reflexivity" marks a departure from what Jagodzinski terms the cynical nature of postmodernist constructs of ironical self-reflexivity, in the work of Giddens, Latour, Foucault, Butler, and others. With the capital "X" he marks the way in which representation in Haneke's cinema shifts the audience perspective toward a denaturalized, non-participatory witness position, holding the viewer in an uncomfortable suspension between representational pleasure and distancing. In this way, Jagodzinski brings issues usually pursued in several disciplinary lexicons into a practice of criticism that crosses them—drawing on, while also critically examining and extending them—in a way analogous to Haneke's cinematography.

In "Transdisciplinarity and Journal Publishing," Gary Genosko explores the impact of "planetary computerization" on the transdisciplinary collaborations characteristic of the self-constituting micro-institutions associated with journal publishing. Given the increasingly distributed collaborative effort that such publishing entails, journals become for Genosko privileged sites of transdisciplinary work, work that, in having to achieve synergetic approaches to problems and opportunities raised by new media technologies, must in his view go one step beyond interdisciplinarity to an extra-disciplinary kind of collaboration. After a discussion of several French journal collaborations, he examines in some detail two salient Canadian journal communities, Arthur and Marie Kroker's *Canadian Journal of Political and Social Theory* and Paul Piccone's *Telos*.

We continue the exploration of specific nodes of interdisciplinary configuration in the form of two critical and historical "case studies," as Morny Joy puts it, of two composite academic disciplines, religious studies and literacy studies. Joy sees religious studies as a "field" rather than a discipline because of its very constitution out of multiple disciplines (she names history, anthropology, philosophy, literary studies, sociology, and psychology as the most prominent). In "Gender, Women's Rights,

and Religion,” she focuses especially on the vexed issue of religious and human rights in the context of their inveterate sacred/secular dissociation both in everyday thinking and in disciplinary tradition. Choosing two contemporary Canadian examples, the national problem of Aboriginal women’s rights and a provincial one of conflicts around the reception of Shari’a law in Ontario, Joy is particularly concerned with the binarism in modernity between the public and the private spheres in the configuration of political and social rights and religious freedom of choice. Then, in his gaze through the prism of literacy studies at the history of interdisciplinary studies, Harvey Graff brings a thoroughgoing historical perspective to the ways in which a necessarily composite field such as literacy studies offers us an added perspective on the demands and institutional protocols of interdisciplinarity. In the course of a valuable overview of the historical development of interdisciplinary theory, Graff demonstrates how critical, comparative, and historical methodologies are required to ensure sufficiently nuanced approaches to interdisciplinarity.

Part Three: Pedagogy

Part Three of this collection turns to teaching and the roles of interdisciplinary studies in the classroom, with three examples from educational studies that reflect on the practice of pedagogy in the context of changed modes of expression and communication in the wider culture and, to open the section, a fourth that examines the interdisciplinary contribution of Lacanian psychoanalysis to the teaching relationship. Psychoanalysis is interdisciplinary in a particular sense, in combining theoretical reflection with a primary concern with treatment rather than pedagogy. In its need to remain grounded in clinical practice, psychoanalysis makes a vital contribution, particularly in the Freudian/Lacanian traditions, to cultural and theoretical exploration across the humanities and social sciences. My late colleague Paul Nonnekes, to whom this volume is dedicated, brings a Lacanian approach to the act of teaching itself, specifically, to the teaching of theory and the marked ways in which students tend to respond to works of theory in the classroom. He finds resources in the Lacanian construct of the *synthome* to help teachers turn students in the direction of the enjoyments—which, for Nonnekes, is to say the challenges—of theoretical reflection.

Both Suzanne de Castell and Roxana Ng, in their disciplinary concern with pedagogy, address the ways that changes in the structures of communication in the culture at large pose new challenges and opportunities both in the classroom and for research. In bringing a multimodal sensibility into play, the shift from print to digital culture raises issues of the senses and the body in their contribution to thinking, learning, and, therefore, teaching. As in Nonnekes' exploration of the pedagogical resources of Lacanian enjoyment, Suzanne de Castell explores a pedagogy of play in developing video games for research and teaching purposes. Digitalization, she argues, "afford[s] us ways of *doing* interdisciplinary work that promise to bridge qualitative and quantitative methods, human and physical sciences, philosophy, art and mathematics, work and play, leisure and learning, and even, I sincerely believe, what we have come to understand as 'body' and 'mind.'" De Castell takes us through two of her digital learning projects, *Arundo donax*, a baroque music learning game, and *The Gigue Is Up*, a baroque dance game, showing how they allow for a multimodal analysis of player responses and thus enable a "digital hermeneutics," in which the goal is "not simply to integrate new media into conventional approaches to knowledge building but to actually *challenge* our commonly received notions of what counts as 'knowledge,' 'facts,' and 'evidence.'"

Roxana Ng moves in the other direction, seeing in current multimedia culture an opportunity to bring forward a more integrated mind-body sensibility, one rooted in traditional Chinese culture, into a classroom dominated by the disembodied dualist characteristics associated with the era of print culture. Ng describes her experience in the classroom of using practical methods drawn from traditional Chinese medicine, and in particular the meditative practice of Qi Gong, to achieve an "embodied learning" that is interdisciplinary in both an experiential and an experimental sense, facilitating a potential "personal as well social transformation," inside and outside the classroom.

Finally, Derek Briton, my collaborator on the symposium that gave rise to this volume, reflects on the experiment in interdisciplinary graduate programming that constitutes Athabasca University's MA program in Integrated Studies. He examines the tension between a logocentric model of integration that might appear to assume self-evident merits and a more

differential and critical attention to the interstices of disciplines and interdisciplines.

NOTES

- 1 MA-IS combines the disciplines in a range of configurations under twelve focus areas, for instance, “Global Studies” and “Work, Organization, and Leadership” (<http://mais.athabascau.ca/specialization/>).
- 2 An anecdotal confirmation of this occurred recently for me in the streets of Cambridge, the mention of which allows me to acknowledge the academic hospitality of Clare Hall during the writing of this introduction. In passing, a student, by appearance an undergraduate, audibly declared his intention to resist what he called “the interdisciplinary bandwagon.”

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PART ONE • THEORY

1

The Menace of Consilience *Keeping the Disciplines Unreconciled*

MARTIN JAY

Over the years, I have been given many opportunities to present my research to audiences across the waters in a number of different institutional settings. Invariably, two responses have been forthcoming, in addition, that is, to whatever howls of disbelief greeted the arguments of the talks themselves. First, someone would express surprise at how much younger I was than they imagined; and second, someone else would profess bafflement at my being a historian. Of late, I have noticed, alas, for not very mysterious reasons, a palpable decline in the frequency of the first of these reactions; the second, however, remains stubbornly constant. In Europe, Asia, Latin America, or Australia, what I do, whatever that may be, is still not normally done by scholars housed in departments of History. As a result, I usually find myself classified as a social theorist or cultural critic or visual arts expert or even, dare I say it, a philosopher. I won't deny that this kind of misidentification produces a certain frisson of pleasure, as if I have somehow broken free of my earthly ties and emerged as one of Mannheim's free-floating intellectuals, able to soar over the walls of my disciplinary cage. But, at the same time, I can't quite shake a nagging anxiety that my impersonation of a non-historian will be revealed

for what it is, a fraudulent misrepresentation on the part of someone who has foolishly allowed himself to graze in someone else's field.

I impose these confessional remarks on you to make three initial points. First, any discussion of the construction and demolition of interdisciplinary boundaries and identities has to take into account the radically distinct contexts in which they exist. Even in the age of travelling theory, turboprofs, and internet globalization, local variations are still very meaningful. No general pronouncements about the state of the humanities *tout court* can hope to do justice to the regional, national, and cultural anomalies that defeat homogenization. However powerful the Americanization of international culture may be, it is wrong to assume that our ways of mapping the intellectual and scholarly world are fully hegemonic. The expectations of audiences count as much as the self-labelling of those who stand in front of them.

The second point I want to make is that the metamorphosis in which I am obliged to engage when I stray into other contexts is not entirely successful. That is, no matter how I try to meet those audience expectations, I cannot entirely jettison the professional formation—or perhaps deformation—produced by my training and socialization as a historian and reinforced by more than three decades of squatting with members of the same tribe. Although my sub-field of intellectual history can often serve as an excuse for forays into interdisciplinary no man's land or even alien disciplinary territory, I always feel the obligation to keep my papers in order in case my cover is blown. If challenged, in other words, I can always fall back on the identity of a professional historian, whose role is merely to chronicle the intellectual triumphs and follies of others rather than commit some of his own. Don't expect me, I can defensively protest, to solve your philosophical or political dilemmas; I only need tell you where they came from and what may explain their curious evolution.

My third initial point is that contrary to the implication that might be drawn from this reticence, which may suggest to some an excessive modesty about the role intellectual historians can and should play in plunging into the discourses whose history they reconstruct, I think it is essentially a healthy reaction to the pressure to efface disciplinary boundaries that is coming at us from so many directions. In what follows, in fact, I want to mount a modest defence of the need to keep the walls up or at least

to dispel the idea that knocking them down is somehow a self-evidently good thing. Perhaps the most insistent recent voice arguing for this outcome is that of Edward O. Wilson, the Harvard sociobiologist whose bestselling plea for what he calls “consilience,” not only among the humanities but among the natural and social sciences as well, attracted considerable recent attention when it appeared more than a decade ago.¹ Borrowed from the nineteenth-century philosopher William Whewell, the term denotes a “jumping together” of facts and theories from different levels to form a single grand theory uniting them all. Although Wilson’s frankly reductionist and often naïve version of the unification argument, which is little more than a hostile takeover bid from the natural sciences, need not detain us in its details, it at least gives us a useful name for the most extreme expression of the hostility to disciplinary boundaries. By calling this essay “The Menace of Consilience,” I want to suggest that the weakening of disciplinarity, within the humanities let alone in a larger arena, may lead us down a slippery slope into intellectual incoherence—or perhaps what is worse, an extorted and sterile super-coherence.

The inclination to efface boundaries separating disciplines has come, of course, not only from attempts, such as Wilson’s, to find a master key to unlock the mysteries of human culture and society by reducing conscious mind to physiological brain, but also from some of the most reflexive work done by people resolutely still on the mind side of the dichotomy. The past few decades have seen the emergence of a kind of superdiscipline that we might call, following the lead of a recent collection of essays by many of its most notable practitioners, “historical and critical studies in disciplinarity.”² In a slew of books, special journals issues, and conferences—such as the one that gave rise to this volume—the formation, dissolution, collapse, and crossbreeding of disciplines has been put under the microscope. What Clifford Geertz, in a celebrated essay of 1980, called “blurred genres” has become as much a normative goal as descriptive statement.³ Since 1988, there has even been a successful journal called *History of the Human Sciences* explicitly devoted to the following aim: “To promote linkages between the different human sciences, encourage the exchange of ideas and the establishment of interdisciplinary projects.” The rise of what my colleague David Hollinger calls new “transdisciplinary journals,” such as *Critical Inquiry*, *Salmagundi*, *October*, *Representations*, *Social Text*,

Raritan, *Daedalus*, and *Common Knowledge*, further exemplifies this trend, which is evident as well in the late lamented *Lingua Franca*, whose purview was the professional academic world as a boundaried whole.⁴ And what was once a scattering of isolated Humanities Centres, serving as oases of interdisciplinarity in a desert of departmental sand dunes, has developed into a dense network of interlocking channels through which nimble scholars can navigate their careers with scarcely ever a need to retreat to dry land.

As a result, we have learned to be acutely aware of the ways in which dubious origin myths, reconstructed teleological narratives, rhetorical demarcation strategies, institutional consolidations, and professional credentialing mechanisms all conspire to lend the aura of naturalness to what has been in fact only historically constructed. To cite one representative formulation, that of the historian of science Timothy Lenoir, “disciplines are political institutions that demarcate areas of academic territory, allocate privileges and responsibilities of expertise, and structure claims on resources . . . disciplines are embedded in market relationships regulating the flow of social and technical practices; they are creatures of history reflecting human habits and preferences rather than a fixed order of nature” (1993, 82).

No one can deny the advance produced by this kind of reflexivity about the enabling—or perhaps disabling—conditions of our work. A genealogical rather than teleological historical consciousness, one that disdains triumphalist narratives of disciplinary consolidation, usefully undermines any residual Whiggishness in the legitimating stories we tell ourselves (and use against our rivals in the struggle for the scarce resources of academic life). Vigilance against canonical accounts that culminate in a presentist celebration of the status quo is a valuable lesson for all historical reconstructions, especially when they are so blatantly in the service of maintaining existing hierarchies of power and influence. After the work of Pierre Bourdieu in particular, we cannot ignore the continuities and homologies between academic fields and their counterparts elsewhere in the social order or deny that struggles over cultural capital and the distinctions it subtends can be as fierce as those over its economic or social counterparts. The realization, moreover, that active research programs

are not necessarily congruent with given disciplinary boundaries, indeed may thrive when they cross them, can only be considered an advance.

But in all of this, one can also hear the echo of the connotational shift produced by Foucault's fateful linking of discipline with punishment, undermining its earlier and more neutral implication of following rules. That is, the realization that knowledge is significantly determined by power and that disciplines are artificial constructs in the service of power maintenance lends an aura of heroic resistance to attempts to transgress boundaries, disrupt settled ideologies, and dereify what has congealed through the oblivion or mythical rewriting of origins. Our conventional wisdom, in fact, now routinely favours hybridity over purity, pollution over abjection, marginalization over centralization, and fragmentation over wholeness, so that it has been easy to infuse the blurring of genres with an almost moral value. The rhetoric of crisis, which once might have suggested pain and distress, now seems to imply the well-deserved toppling of brittle and antiquated residues of a benighted past. That frisson of naughty pleasure to which I confessed at the outset is the result, and we all seem to share some of it these days.

There is, however, an important distinction that has to be drawn between modes of blurring genres and effacing boundaries. The one I have identified with Wilson's universalizing and objectivizing concept of consilience has its tacit counterpart in certain tendencies in the humanities and social sciences. The most boldly totalizing enterprises, such as the Frankfurt Institute of Social Research's ambitious collaborative program of the 1930s, whose rise and decline I have discussed elsewhere (see Jay 1986), may no longer seem very compelling. But there are still at least tacitly holistic tendencies in certain contemporary trends. Perhaps the most obvious is the recent inflation of the idea of culture to encompass virtually everything that is traditionally compartmentalized in discrete sub-spheres. Raymond Williams's celebrated plea to extend the concept from its elite usage to an anthropological "whole way of life" has been answered by the vigorous growth of "cultural studies" as an omnivorous leviathan that threatens to swallow up everything else. Understood in the light of this approach, academic disciplines themselves are conceptualized as cultural practices rather than epistemological categories that open up vistas on the real world outside. Although there have been rumblings

of discontent about the hypertrophy of the culture concept—see, for example, Geoffrey Hartman’s *The Fateful Question of Culture* (1997) and at least some of the essays collected by John Carlos Rowe as “*Culture*” and *the Problem of the Disciplines* (1998)—the homogenizing force of cultural studies, at least in certain of its guises, is not yet spent.

A similar effect has been produced by the succession of so-called “turns” that have made discrete disciplines seem more like fields of obedient flowers straining to face the same sun than settled scholarly traditions. The “linguistic turn” was only the first of many that have recently produced this contagious tropism; we now have interpretive, rhetorical, and pictorial or visual turns, and perhaps are on the cusp of performative and ethical ones as well. With so many suns to turn to, the homogenizing is by no means uniform, but the weakening of received disciplinary identities is abetted nonetheless. We may therefore be moving toward yet another “post” moment, that of postdisciplinarity.

Or so it might seem, if we neglect the second mode of blurring genres in the humanities, which cannot be analogized from Wilson’s imperial notion of consilience and disdains any hegemonizing concept like critical theory, culture, or the rhetoric of collective turns. Here we encounter what might be called the anti-foundationalist, anti-universalizing variant of blurring genres, which resists seeking any master key to subtend all of them. Instead, it rests content with the realization that disciplines themselves, for all of their homogenizing pressures, have often been tense and fragile agglomerations of competing methods, interests, and focal points with elusive essences, if there are essences at all. It knows as well that the demarcations separating them have always been porous and shifting with no impermeable walls keeping out intruders. But rather than bemoaning this condition, it celebrates it. It knows that no amount of policing has ever prevented subdisciplines from rising to challenge the hegemony of the mainstream definitions of what a discipline really is. And, perhaps most important of all, it recognizes that the pressures to dissolve, fragment, and hybridize what may seem solid at one moment are met by counterpressures to form affinity groups and new collective identities around nascent research programs or innovative methodologies or challenges from the world outside of the academy.

This version of postdisciplinarity turns out to be just as much predisciplinarity, insofar as new configurations and alliances are on the horizon. Unlike the consilience model of universal coordination, it embraces a pluralist welter of fresh agglomerations, which resist being synchronized and hierarchized in a grand system. Some of these may well supplant older models, although others may create palimpsests in which the older order is not so much effaced as partly covered over. Or, to employ yet another metaphor, the ruins of old disciplinary boundaries are not so much levelled in order to remap the world anew as recombined to form what begin as fragile and eclectic juxtapositions and soon congeal into pseudo-natural discursive edifices.

One way to account for, or at least conceptualize, the dynamism of disciplinary reinvention is, in fact, to rethink some of the metaphorical assumptions that often underlie our traditional ways of approaching the issue. Often we borrow our terminology from planar geometry, in which fields are taken to be bounded spaces with explicit borders and homogeneous interiors. We talk, as indeed I have at various earlier points in this essay, about “walls” around disciplines or “turf wars” for control of contested territory. The implied perspective on such a field is that of a distant observer with a God’s eye view—or at least that of an omniscient dean—above the surveyed landscape. Disciplines become like so many nations on a two-dimensional map. If one gains, the implication is that others are diminished; if two merge, the resulting territory is assumed to be so much greater than before; if one retreats, others will fill the vacuum left behind.

But what if a different metaphoric were evoked, one in which fields are of force or energy and the dimensions at least three in number? What if, with Bourdieu and Wacquant, we acknowledged that “to think in terms of field is to think relationally?” (1992, 119). The force field model, which was advanced as well by Walter Benjamin and Theodor Adorno, is one I have often evoked in the past, and I do not want to rehearse all of the arguments in its favour now.⁵ But with reference to the question of disciplinarity, the following points are worth underlining. Like the familiar trope of “family resemblances” advanced by Wittgenstein, but with the added virtue of alerting us to the multiplicity of pushes and pulls that go beyond the duality of matrilineal and patrilineal descent, a force field

resists the logic of subsumption. That is, every discipline is a juxtaposed set of elements that cohere for at least a certain period of time because of the energies that tie them together rather than a smoothly homogeneous body of practices, methods, and subject matters subsumed under and governed by shared rules. Within constituted disciplines, there is thus no privileged location from which the whole can be seen and controlled. As Julie Thompson Klein has noted, “unidisciplinary competence is a myth, because the degree of specialization and the volume of information that fall within the boundaries of a named academic discipline are larger than any single individual can master” (1993, 188).

If we treat disciplines as relational networks of elements, tensely kept together by the discursive equivalent of gravitational or electromagnetic energy, rather than coherent, two-dimensional territories with explicit boundaries, we can, moreover, better understand the ways in which their internal workings and external environments may seem roughly continuous rather than radically divided. For disciplines themselves can, of course, be the elements in higher-order force fields, which allow us to place them in such categories as the humanities, social sciences, and natural sciences. Because they are dynamic and relational rather than static and saturated fields, their elements are often simultaneously involved in other juxtapositions with elements from other disciplines. Because the forces that tie them together may be weaker, at least at certain moments, they can seem more firmly located in one disciplinary network than another. However, the constellation of forces can shift for a variety of reasons, so that identities may be transformed. The field of economic history, for example, may move from history to economics departments and back again, or new fields like visual culture or theory may set up shop on their own.

These are all pretty self-evident observations, but they may help us to understand that the so-called fracturing or dissolution of disciplines is not as unusual as it may seem and certainly need not be a cause for alarmist talk of disciplinary “crisis” or “collapse.” But how do they support the point I sought to make at the beginning of the talk: the need to mount a modest defence of the relative independence and coherence of disciplines? If, as I have just said, the internal and external dynamics of fields are roughly homologous, doesn’t this undermine the very solidity of

discrete disciplines I seem to be defending? Doesn't it provide ammunition for a non-foundationalist variant of the universalization argument by positing a meta-network of energies and forces in which disciplines are merely fragile constellations of ephemeral juxtapositions? Aren't I just advancing another version of the meta-discipline of disciplinarity, which seeks a vantage point above the fray?

Although I would concede the plausibility of these readings, let me suggest three reasons why I think they are not fully adequate. First, to make a familiar point that nonetheless bears rehearsing, the fact that a temporal constellation of elements can be seen as ultimately impermanent and open to future adjustment or even dissolution does not undermine the fact that for a certain, albeit finite period of time, the forces that keep it in order do prevail. Our solar system will not last forever, but I wouldn't bet on it spinning out of control in the near future. Or, to put it in the terms of another discourse, which harkens back to the Western Marxism of a Lukács, to realize that fixed structures are reifications, sustained in part by the oblivion of their origins in human practice, is not sufficient to undo their effects. Successful dereification is a much more onerous and time-consuming effort, which goes beyond mere consciousness raising. We may, in other words, know that knowledge is an effect of power, that disciplines are in the service of hierarchy, that the world they depict can be described in very different ways, but we can't then immediately reverse their power over us. Disciplines, in short, are institutions as well as discourses, and changing institutions is not as quick or easy as it may seem to radical constructivists.

Second, if we take seriously the three-dimensionality of the force field model, we can appreciate the inertial staying power of the constellations that have come to exist. Rather than assuming fields are flat, planar, two-dimensional spaces, we have to acknowledge the bisecting axes of the subjects who enter the disciplines and the objects that are assumed to be their external points of reference. Rather, that is, than seeing disciplinary discourses as self-sufficient and entirely immanent, constructing both their subjects and objects with no remainder, we need to be alert to the ways in which practitioners and worlds exceed their discursive interface. To take the former first, we have to recognize that even if we accept the discipline-as-cultural-practice model, we must leave some leeway for

the agency of those who engage in the practices. This helps us to account for the very reflexivity that allows us to see outside the discursive field in which we are situated, and thus perhaps challenge some of its characteristics. But conversely, we should also understand that included in that agency is the formation of the practitioner within specific historical constellations whose inertial power remains powerful over time, no matter how radical his or her attempt to leave it behind and remake the disciplinary world anew. That is, the sense of fraudulent interloping I mentioned at the outset of this talk when discussing my own forays beyond the boundaries of history is an almost inevitable result of the baggage I bring with me. The same might be said of unapologetic universalizers like Edward O. Wilson, whose allegedly neutral call for consilience turns out, to no one's surprise, to be a plea for the power of evolutionary biology and cognitive science to explain everything. No one, in short, is socialized into a fully transcendental, transdisciplinary identity, at least not since Leibniz, who is frequently taken to be the last intellectual to claim universal mastery. Even the most versatile polymath has his or her limitations in a context in which the intellectual division of labor has become irreversible. For this reason, interdisciplinarity must be at best a collaborative project, but one which cannot fully overcome the individual prejudices of the participants in the game, who cannot fully leave behind their idiosyncratic formations. No collapse of disciplines is thus possible when we recognize the subjective role of the actual people, none of whom is beyond particularity, who engage in and sustain cultural practices.

A similar conclusion follows if we think closely about the objects of inquiry that are the substantive focus of disciplinary investigation. A realist epistemology will, of course, contend that the different areas of inquiry correspond to natural kinds, which are not merely the effects of discursive construction. We cut into nature at the joints, so the familiar metaphor goes, and need to make sense of its parts through different approaches that will best reveal its separate workings. There are, for example, individuals and there are societies which allow psychology and sociology to carve out their respective disciplinary domains. Both have their ontological, or at least historically congealed truths, which make any attempt to privilege one over the other by dogmatic adherents of methodological individualism or methodological holism an exercise in misplaced concreteness. As

Adorno once put it with reference to the project of a social psychology: “The separation of sociology and psychology is both correct and false. False because it encourages the specialists to relinquish the attempt to know the totality which even the separation of the two demands; and correct insofar as it registers more intransigently the split that has actually taken place in reality than does the premature unification at the level of theory” (1967, 78).

Such an argument may not convince many in these days of strong constructivist and culturalist critiques of naturalization, but even a historicist version of the objects of disciplinary inquiry must take into account the stubborn effects of disciplinary constellations in the past. Training in a discipline, after all, involves more than mastering its methods and knowing how to apply them; it also entails becoming fully conversant with what we call the “literature” in the field, that is, its canon. Although we may work to go beyond it, a struggle that ironically often involves acquiring knowledge of the canonical literature in another field, we cannot construct the objects of our inquiry *ex nihilo*. They come to us already filtered through their prior constitution, which more or less tenaciously determines their current and future status. Even if we can question the legitimating narratives of disciplinary identity and show that power and the scramble for cultural capital rather than disinterested knowledge subtends the hierarchical division of the pie, we cannot simply undo the effects of prior consolidations and demarcations. In short, a relational and three-dimensional notion of a force field will allow us to understand that both the subject of disciplinary inquiry and the object carry with them the residues of past configurations, which cannot be jettisoned at will in the name of universalizing consilience.

Perhaps these considerations make my plea for preserving distinctions a bit too defensively. Perhaps they suggest only why it will be unlikely that disciplines will collapse, not why it is a good thing that they won't. One final thought will, I hope, help to provide a more positive answer. It will be evident in how I have been arguing that I think it imperative to foreground the metaphorical assumptions underlying any discussion of disciplinarity: consilience as a jumping together, disciplines as either bounded, two-dimensional fields or relational networks of forces in three dimensions, even the word “discipline” itself as carrying connotational baggage

from its placement in a Foucauldian universe of normalization and coercion. What, we might ask, is the more fundamental role of metaphor in the relations between or among disciplines? Here the efforts of the German philosopher and historian of ideas Hans Blumenberg to defend what he calls the value of “nonconceptuality” (see Blumenberg 1997) may give us some guidance.

According to Blumenberg’s “metaphorology,” metaphor is more than a mere ornament of speech, more than a mere linguistic expression that can be improved by the imposition of a precise, conceptually rigorous terminology, such as that often sought by science and analytic philosophy. It shows instead that often sedimented in seemingly univocal terms are the corpses of dead and forgotten metaphors, an argument famously made by Nietzsche. These metaphors arise out of a pre-scientific lifeworld in which attempts to master reality depended on analogizing from the known to the unknown, the familiar to the unfamiliar, what is present to what is not. “Analogy is the realism of metaphor,” Blumenberg writes (1997, 95). It even appears in modern natural science, where, for example, the macrosystem of the solar system was analogized to explain the workings of the microsystem of the molecule, at least for a while. What metaphors preserve, even when they seem to imply homologous relations and symbolic integration, is the inevitable heterogeneity of the two terms metaphorized. Napoleon may be like an eagle in his courage, nobility, and predatory guile, but one of them has feathers and the other does not. Even in non-aesthetic contexts, therefore, metaphors should not be seen as weak anticipations of carefully defined concepts, preliminary approximations of what a more rigorous linguistic univocality can more precisely provide. They are rather salutary checks to the homogenizing power of conceptual subsumption or, in the words of Husserl cited by Blumenberg, “resistances to harmony” (Blumenberg 1997, 83). As a form of nonconceptual knowledge—and Blumenberg wants to emphasize that they are legitimate forms of knowledge—they are akin to the ineffable understanding we derive from reading a face, something that is closer to an art than a science, but meaningful nonetheless.

Blumenberg does not, to be sure, extend his analysis to the relations among disciplines. In fact, at one point in his argument he says that “the homelessness of metaphor in a world determined by disciplined

experience can be seen in the uneasiness encountered by everything that does not meet the standard of language that tends toward objective univocity” (1997, 89). Here it seems that disciplining once again connotes a repressive Foucauldian world of normalization and control. But if we allow ourselves to think of disciplines in the ways I have suggested above, as relational force fields with internal heterogeneities and three-dimensional configurations, then their proximity to nonconceptuality in Blumenberg’s sense becomes clearer. That is, the analogical rather than subsumptive logic of moving from one discipline to another should be recalled in order to resist the homogenizing danger latent in dreams of universal consilience. When, for example, advocates of the linguistic turn suggest that we understand kinship structures, the syntagmatic structures of films, or the unconscious as if they followed the semiotic and grammatical protocols of a language, what needs to be remembered is that although something is gained by the simile “like a language,” something is inevitably lost. When we talk, to take another example, of reading images as if they were texts, we may be stimulated to ask questions of them that would be ignored otherwise, but we have to stop short before concluding that they are nothing but texts with no remainders that make them specifically visual. Likewise, borrowing the idea of capital from economics and applying it to culture is a healthy check to idealist illusions of cultural autonomy, but applied too literally and reductively, it can preclude in advance any acknowledgement of those aspects of culture that transcend all economic modes of behaviour. And when we enrich our understanding of historical narratives by placing them in the context of more general theories of narratology, we must also acknowledge that the differences between historical and fictional narration are sufficiently meaningful to prohibit our turning an analogy into an identity. If within what has temporarily congealed into a disciplinary force field the elements in the field are themselves not subsumable under a single conceptual logic, even if they form meaningful configurations, in an interdisciplinary or transdisciplinary force field the prohibition against forcing such a subsumption should be even more powerfully in effect.

With these warnings in mind, one might be tempted to go the opposite extreme from the defenders of consilience and endorse the call of Bill Readings (1997) and J. Hillis Miller (1998, 64) for “a new university

of dissensus, of the copresence of irreconcilable and to some degree mutually opaque goods,” or what they both have termed “a university of respect, rather than knowledge.” Such a university, they tell us, would be so fearful of the coerced reconciliations and technological imperatives that motivate the project of consilience—or weaker versions of convergence that, according to Readings and Miller, hide behind the vapid slogan of “excellence”—that it would actively seek to short-circuit any dialogue between or among different fields. The old university model of integrated *Bildung*, the liberal arts dream of a humanist well-roundedness, is now only a dilapidated ruin, they argue, which cannot, indeed should not, be reconstructed.

I am not sure, however, that so radical a hostility to projects of reconciliation and even consensus need be the only implication that one can draw from a resistance to the menace of consilience. For although analogical and metaphorical relationality are not equivalent to identitarian homogenization, they do provide meaningful and suggestive ways to overcome, or at least work pragmatically within, the limits of human cognitive power. Dissensus as a normative goal does not seem to me any more self-evidently liberating than consensus or always jumping apart necessarily healthier than trying to jump together. Force fields, after all, work through attraction as well as repulsion, and disciplines can surely learn from their permeability to energies from without, which help create new productive constellations. The antidote to the implosion of collapse and the blurring of genres is not the explosion of incommensurability, even accompanied by respect for difference. For as Dominick LaCapra has noted with reference to Readings’s evocation of Lyotard’s notion of a radically incommensurable “differend,”

it suppresses an internal distinction within that very category: the differend as nonnegotiable difference that marks a total standoff or an aporia and the differend as a difference for which there is no metalanguage or higher order normative system but that still allows for translation between positions in a manner analogous to the process, involving both losses and gains, that takes place between natural languages like English and French (1998, 43).

There is, in fact, no sweeping formula that will capture the state of disciplinarity today, let alone one that will serve as a normative model for the disciplines or interdisciplinarity of the future. Prophets of consilience may come and go and devotees of radical dissensus will arise to put them in their place, but the drama of negotiating and renegotiating the sometimes fragile, sometimes resilient boundaries of those cultural practices we call disciplines will continue as long as finite, creaturely human beings struggle both to make and to make sense of their bewildering world. Even those of us who wander into no man's land have to retire to the home front every so often to replenish our supplies. Even those of us who yearn to fly above the fray have every so often to land on familiar territory. And perhaps most pertinent of all at this moment, even those of us who dive into the sea of infinite metaphoricity have to put an end to their analogizing and allow the author of the next essay a chance to start his or her own chain.

NOTES

- 1 See Wilson 1998. For a particularly insightful response, see H. Allen Orr, "The Big Picture," *Boston Review*, 23, no. 5 (October–November 1998), <http://bostonreview.net/BR23.5/Orr.html>.
- 2 See Messer-Davidow, Shumway, and Sylvan 1993. *Knowledges: Historical and Critical Studies in Disciplinarity* was the first in a series devoted to "Disciplinarity and Beyond."
- 3 Geertz's essay, "Blurred Genres: The Reconfiguration of Social Thought," focused primarily on the penetration of discursive analogies from the humanities into the social sciences.
- 4 See Hollinger 1997. His essay—"The Disciplines and the Identity Debates, 1970–1995"—appeared in a special issue of *Daedalus*, "American Academic Culture in Transition: Fifty Years, Four Disciplines," which focused on philosophy, literary studies, political science, and economics. *Daedalus*, the journal of the American Academy of Arts and Sciences, is, of course, itself an older transdisciplinary journal, matched only by *The American Scholar*, published by Phi Beta Kappa.
- 5 See the introduction to *Force Fields: Between Intellectual History and Cultural Critique* (Jay 1992) for my most sustained attempt to discuss this model.

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2

The Telos of the Good Life *Reflections on Interdisciplinarity and Models of Knowledge*

IAN ANGUS

Given that the question of interdisciplinarity refers us back to disciplines, and that the disciplinary organization of knowledge is an institutional phenomenon, it seems evident that one's approach to interdisciplinarity is cogently related to one's institutional position. Not to say that it is a simple reflection of that position, or that one's position is solely determined by one's ideas about disciplines, but that thinking about interdisciplinarity centrally pertains to current institutional priorities and the possibilities for alternative forms of production of knowledge.

While the question of interdisciplinarity puts into question one's institutional position, it may do so in several ways. Interdisciplinarity may refer to individual work of an interdisciplinary investigative character, collaborative work between members of different disciplines, or an analysis of the university as an institution—its normally disciplinary character and the potential of interdisciplinary institutional initiatives. There are two main barriers to individual interdisciplinary work. The first is that hiring

is done in universities almost exclusively by departments organized along disciplinary lines. All that the faculty have in common is their disciplinary education, which is reinforced by their departmental practice, such that they tend to hire new faculty in a way that continues in much the same fashion. This hiring practice has not altered in many years and shows no sign of doing so. The second barrier is based on the method for enforcing the disciplinary character of individual research through the recognition of valid publication only if it occurs in established disciplinary journals (often reinforced by ranking journals). This practice seems to be lessening over time alongside a growing recognition of the value of interdisciplinary and public contributions by university faculty. But, however this actually may be in practice, it can be fairly estimated by the degree to which publication in disciplinary venues is mandated for tenure, promotion, and merit awards. Collaborative work between members of disciplines is on the rise, though, and as I will outline, it can take several forms. My approach will primarily take the form of an institutional analysis, though it is nevertheless the case that these different meanings of interdisciplinarity do overlap, not least since changing institutional structures allow the recognition of new forms of collaboration and publication. An important institutional issue is the impact of new structures on students and teachers, particularly on what they can expect from the learning process and what it demands of them.

Pertinent to the institutional position from which I speak, perhaps I may begin with a confession. After finishing a master's degree in philosophy, I was drawn to undertake my PHD studies in an interdisciplinary program, because of both the limitations of analytically dominated departments of philosophy and the positive allure of roaming beyond boundaries that seemed artificially imposed.¹ The attraction to interdisciplinary studies was entwined with my interest in phenomenology and Marxism, especially the Frankfurt School—two approaches that attempted the coordination of knowledge in the fragmented conditions of the twentieth century—and a political orientation toward the relevance of knowledge to a project of self-emancipation that goes beyond the university. As the expectation of far-reaching social change that underlay this orientation began to recede, the practical consequences of obtaining an interdisciplinary PHD while the university environment remained dominated by

disciplinary organization were driven home to me through the difficulties encountered in finding work. Then as now, universities talk a better game of interdisciplinarity than they support organizationally and financially. Thus, my position on disciplines tends to be that of a child in front of a candy store window. I see all the sweets laid out in front of me but they seem forever beyond my reach. While others have turned to interdisciplinarity as a way to transgress boundaries and overstep limitations, I have tended to focus on the keys with which the disciplines lock up the goodies. Similarly, my work is often assumed to belong elsewhere, no one seems to know where exactly, but it certainly isn't here because no one does that sort of thing here . . . thus, my interest in the institutional determinants that recognize certain forms of research to the detriment of others. I have found that interdisciplinary institutional formations have been most receptive to the interdisciplinary writing in which I have engaged.

Approximately a decade ago I wrote a book on Canada called *A Border Within*. To address issues of identity and difference, English Canada, globalization, and the nation-state, I needed to venture into areas of history, political science, political economy, and literary theory, among others, where I was often less than sure of the conventional maps.² In such a situation one has to navigate on a case-by-case basis in determining what is enough contextual knowledge and specific information to ground one's argument sufficiently. One is in the realm of judgments and not of rules, and thus it is impossible to give a general account of when enough is enough.³ When one chooses to write about a problem that does not have a definite location within a discipline, one has to recontextualize the knowledge upon which one draws within the integrity of the developing inquiry. One has to risk a defence of that inquiry on grounds that one shares with others outside the institutional division of knowledge—with fellow citizens, activists, neighbours, or friends—and thereby enter the terrain where the system of knowledge production scrapes up against the traditional or emergent non-disciplinary knowledges imbedded in everyday life.⁴ In this case, I wanted to sum up, rethink and extend the project of left-nationalism that had been a significant emancipatory tendency specific to English Canada and national politics coming from the 1970s. Strangely enough, this is not too far from what I had meant by philosophy, based on my own engagement with that practice, when I had succumbed

to the allure of interdisciplinarity—thinking that perhaps genuine philosophy could be found there. Interdisciplinarity refers us to the plurality of disciplines and the institution that enforces them, but it refers the practitioner also to the socio-historical lifeworld outside the university. The construction of knowledge and its social role becomes an unavoidable issue.

If the question of interdisciplinarity implies this complex of problems, it is difficult to formulate an approach that is neither too narrow nor too general. I will attempt to track a path from the institutional determinants of the social role of knowledge, to the modern form of knowledge, and thus to the structure of disciplinary, topical, and interdisciplinary studies. This investigation is based primarily on my experience in universities structured in this fashion. I am trying to think through what I have been doing in the hope that it might aid those who are doing something similar. It is intended that this path will ground sufficiently the final two sections, in which I will address the question of interdisciplinarity through its contemporaneity—*why now?*—and its method—*how?*

UNIVERSITY STRUCTURE AND INTERDISCIPLINARITY

We live in a society that is structurally committed to scientific and technological development and the perpetual introduction of new scientific-technical innovations into social life. The role of knowledge in such a society is not a peripheral question but pertains to its basic organization and possibilities. Questioning the social construction and organization of knowledge refers us to the university, which is the major institution of advanced learning and research in contemporary society. It is not, however, the only such institution. There are also corporate and government research and development institutions. In these sites, multidisciplinary co-operation is driven by a fairly definite purpose, which is based upon the exigencies of profit or policy. The fight against the Nazis in World War II was a watershed for organized science in this respect. One may think of the research work on German institutions and people undertaken by the Office of Strategic Services (the forerunner of the CIA) or the Manhattan Project that constructed the first atomic bombs. Coordination

of multidisciplinary research toward a definite goal, whether by corporate or government interests, poses many practical issues, no doubt. However, because the goal of such research and development is decided prior to and apart from its organization and execution, the social, historical, and natural environment enters only minimally into multidisciplinary research through this goal or set of goals.⁵ University-based interdisciplinary research is more complex in this sense owing to the heterogeneous, incipient, and conflicting social goals that enter into its formation. Moreover, the impact of such social goals is mediated by the university structure itself. Most important are the disciplinary structure of the university and the freedom of university-based researchers to choose the subject of their research themselves (see Angus 2007). This is a major reason why both corporate and government research institutions do not attempt to replace universities but instead rely on them for teaching and basic research. Even in the current environment in which corporate forces have invaded the university to an unprecedented extent, they do not attempt to replace non-profitable teaching and basic research functions but rather to influence and monopolize, through the allocation of research funds, the profitable technological applications that derive from the basic functions specific to the university.

The university occupies a crucial location in the changing constellation of industry, government, and social interests or goals. The question of interdisciplinarity invokes a position toward that organization of the university oriented toward its specific functions of teaching and basic research. This question also requires that the university's disciplinary division of knowledge be examined in relation to the traditional and emergent non-disciplinary knowledges in the extra-university environment. The question of interdisciplinarity takes us to the centre of the mutations in the social construction and organization of knowledge in the contemporary lifeworld.

There are many reasons to suppose that the practical issues in such a mutation have become widely perceived in recent years. For example, there is a permanent tendency for disciplinary research to replace the questions that students and faculty bring to the university themselves with issues already recognized within a discipline or to cut and massage the original questions into a partial, domesticated form in which they can

be addressed within the prevailing assumptions of the discipline. This leads to disaffection with the learning that the university proffers as its main virtue. The experiments in interdisciplinary research and organization over the past forty years or so give us reason to believe that there is already established a certain dissatisfaction with disciplinary structure. Moreover, overlaps have emerged through the subdivisions within disciplines that mitigate the original division. Does it matter, for example, whether contemporary social movements are studied under the rubric of democratic politics in political science or political sociology? Can the political theory, sociological theory, and social and political philosophy sections of their departments be effectively sealed off from each other? Conferences and journals have sprung up in which specific issues are discussed by researchers from different disciplines. Such common interests often make for stronger affiliation than the traditional annual meetings of the disciplines. They often allow discussion more genuinely and effectively related to the extra-university knowledges and practices with which they interact. Moreover, new approaches such as cultural studies and complexity theory transgress disciplinary boundaries and suggest a possible reunification of knowledge in a manner reminiscent of phenomenology and Frankfurt School critical theory. Nevertheless, there are dangers of interdisciplinarity: the lack of a canon often leaves one without clear, or sufficiently theoretically developed, points of orientation, leading to the permanent temptation of mere eclecticism. The lack of a broad disciplinary intellectual formation often leads interdisciplinary research to become narrower in focus despite its rhetoric of widening by “crossing arbitrary boundaries and limits.”

Accumulation of these experiences leads us now to approach the question of interdisciplinarity in the basic sense of the formation of knowledge and the challenges that it faces in our contemporary world. We must ask about the destiny of thought, and its institutional formation in the university, within the changing temper of corporate and government forces and the challenges posed by social movements in proposing non-disciplinary traditional and emergent knowledges. To address this question I will reflect on three models of knowledge practised in the contemporary university—disciplinary, topical, and interdisciplinary—against the

background of the modern form of knowledge that has enabled them and whose limits they test.

THE FORM OF MODERN KNOWLEDGE

Explication of the form of modern knowledge is a task well beyond the present essay. Nonetheless, some of its key features need to be recalled in order to address the challenge of contemporary interdisciplinarity. Galileo can be taken as exemplary for the modern form of knowledge that was instituted in the seventeenth century. The new physical science was at once mathematical and experimental. Its mathematical aspect involved abstraction from experienced objects toward a teleology of formal systematicity. Its experimental aspect re-established the pertinence of a formal-mathematical system of knowledge to a material domain of objects through a correlative abstracting, and therefore standardizing, of experimental conditions from ordinary experience.⁶ The new science was at once formally systematic and inherently tied to technological development through its experimental dimension. As a consequence, the ground plan of the new science could be applied to an increasing number of new domains. This “infinite task” of progressive scientific development projected the unprecedented idea of “the idea of a rational infinite totality of being with a rational science systematically mastering it” (Husserl 1970, 21–22). The architectonic of modern knowledge thus required specialization of domains in order for scientific knowledge to divide the totality of being into specific domains amenable to methodical research. Cumulative research within domains could be expected to add up to general scientific progress toward infinity. Owing to the necessity of specialization in the modern form of knowledge, we encounter here one of the most basic and influential rhetorical figures of interdisciplinarity: that the numerous specialized domains of knowledge must be synthesized. Such a new unity of knowledge would re-establish in a modern form the totality of knowledge that pre-modern science accomplished under the umbrella of religion. To anticipate, my defence of interdisciplinarity will not rest upon such a figure of unification.

The progress of modern knowledge could be obtained by the human subject only insofar as it stood apart from nature and applied its intelligence to the domination of nature. To this extent, modern knowledge is based upon a Cartesian separation between mind and matter, or unextended spirit and extended nature. The value-laden issues of the good and the beautiful in the domain of spirit were thus separated from scientific research. The human subject was similarly split within itself insofar as it inhabits both of these domains. Domination of nature thus requires the domination of the extended, material part of the human by its unextended, spiritual part. This division is also written onto social classes, since the labouring classes function as material to be “spiritually” directed by the ruling class.

The social dimension of the modern form of knowledge involved the separation of a class of scientists practising scientific methodology from the church authorities that based themselves on religious postulations of the structure of nature and spirit. It is the specific contribution of the eighteenth-century Enlightenment to draw the conclusion that amelioration of human suffering could be achieved by the technological capacity inherent in modern science if it were applied in the social realm without restriction by religion. Thus a social science built on the same theoretical and methodological foundation as the earlier natural science could be expected to contribute to social enlightenment. Note that this extension of modern science carries forward within itself the two fundamental separations that characterize the earlier formation of modern knowledge: first, the separation between scientific knowledge and ordinary experience which, when socially applied, means the separation between the class of scientists and the unschooled population; second, the separation between value-laden domains of the spirit—which were left aside to the discredited form of knowledge entwined with religion—and the search for truth understood as distinct from the value judgments inherent in practical action. It is these two lingering issues that have come intensely into question in our time and that have posed irrevocable problems for the model of social enlightenment dominant since the eighteenth century.

How to connect the search for truth to the value-laden searches for the good and the beautiful? How to pursue this combined goodness and truth, if it is possible, in a way that promotes social enlightenment? Or, in

more contemporary terms, what is the relation between the methodical inquiry into empirical knowledge and the hermeneutical interpretation of meaningful texts? What is the relation between the pursuit of knowledge and values such as democracy? My all-too-brief recollection of the institution of modern knowledge is intended to show that these issues, which are generally perceived as real and pressing issues today, are not passing ones but are rooted in a fundamental questioning of the theoretical and social form of modern knowledge.⁷ The role of disciplines, as the form that the necessary specialization of research in modern knowledge takes within the university, indicates the continuing institutional weight of this form. The question of interdisciplinarity indicates the extent to which it has already come under criticism and is undergoing transformation.

DISCIPLINARY KNOWLEDGE

A discipline enables new knowledge to be fitted into the ground plan, or conceptual field, laid out as a domain of objects open to systematic investigation.⁸ This ground plan is prior to current research since it provides the framework in which the questions that guide such research are meaningful. But it is also reformed by the cumulative effect of current researches such that the ground plan at any given point is the product of a previous history of specialized inquiry. I do not mean to suggest that a clear and consistent ground plan commands assent by all researchers working in a given field. Indeed, that much clarity and consistency would demand a ground plan of such simplicity that it would be unlikely to generate anything interesting in the way of new problems or perspectives. A ground plan of a discipline allows for sufficient disagreement over its major features and sufficient ‘unclarity’ of certain problem-areas that there remains much to argue and to do. This flexibility is kept within manageable limits by the narration of the history of the science—an account that selects certain heroes, sketches their contribution to the field as a whole, and sets out certain traditions of inquiry within the discipline. The narration describes a canon, and debates about the classic texts occur at fundamental turning points in the history of a discipline. Marx, Weber, and Durkheim constitute the classic texts of sociology, and it is hard to

claim as respectable a department of sociology in ignorance of them. Even a specialized empirical science has recourse to narration in communicating its ground plan sufficiently to provoke new research within its domain. The historical interplay between ground plan and research is what allows a discipline to distinguish and define itself by three exclusions.

One, for reasons inherent in modern knowledge itself, as explained above, a discipline distinguishes itself from the non-disciplinary accounts of the general population. The off-hand social observations of non-specialists are at most the subject-matter of sociology, never generalizations worthy of scientific testing, nor are their proponents interlocutors of equal credibility.

Two, the historical account of the development of a specialized science will draw upon precursors in philosophy, religion, and myth, but it will necessarily draw a distinction between scientific research and the generalized thinking that defines precursors as precursors: such precursors operated the totalizing framework within which individual observations and claims were linked to a total world view incorporating conceptions of the true, the good, and the beautiful that define a form of life. The onset of science in the disciplinary sense is defined precisely through this distinction.⁹ Even if it remains controversial where to draw this line within the discipline, some such line will have to be drawn by every scientific tradition. The distinction of religion from the sociology of religion is a case in point. Sociology of religion requires that research exclude the question of what is the true, good, and beautiful religion precisely in order to open up the domain of the social consequences of belief in a given religion. Yet it is precisely the evaluative question that draws most people to the study of religion in the first place.

Three, certain questions are defined as outside the methodological inquiry of the specialized science because they do not conform to the domain of objects that it investigates. In principle, they have or could become the topics of neighbouring specialized sciences. Physics concerns itself with simply material objects, whereas biology focuses on material objects that are internally unified to constitute life. Psychology concerns itself with the structure of the mind considered individually, whereas sociology deals with the institutions that mould and reflect the mental character of humans as social beings. The productivity of research within

a discipline is made possible by this double exclusion—of pre-scientific, totalizing precursors and of other specialized sciences. After all, a specialized science of the whole of reality is a contradiction in terms.

This model of a discipline could be fleshed out considerably with proper attention to the issue of combined and uneven development. Social science disciplines, because of the claim to scientific status, insist on the rupture with non-specialists and precursors to a greater degree. For humanities disciplines, however, this insistence is less strident. History, philosophy, and literatures tend to claim some continuity with precursors, even while noting the break that university studies introduce. Thucydides, Socrates, and Shakespeare are not only the subject matter of these disciplines but still, in a muted sense, carry forward a content into what the discipline itself is. Often this is a way of capturing the prestige of reflected glory. How many milquetoast philosophy professors have proclaimed the dangerousness of philosophy with reference to Socrates' fate? Even so, the break is still there: the polemical side of classical, predisciplinary historical writing, the existential and combative side of philosophy, the focus of predisciplinary literatures on the subject of their writing to the detriment of its textuality, all indicate the difference in practice of the disciplinary versions such as analytic or philological philosophy, history as other than the narrative of victors, and literary theory, which provide examples of scientific status entering the humanities. One has only to look at the mingled disdain and envy directed by professional historians at Pierre Berton, for example, or by professional philosophers at Ayn Rand. The separation of a discipline from its precursors and non-specialists is a historical phenomenon that is in its specifics distinct from that of other disciplines, that occurs with a distinct accent on the relation between break and continuity which defines the discipline's claim to relevance to the socio-historical lifeworld but, despite these specific features, aims at a model of disciplinary closure rooted in the modern form of knowledge.

One meaning of interdisciplinarity emerges directly in relation to the constitution of disciplines. At any given stage of inquiry, the totality of being is divided into various specialized sciences that, taken together, do not exhaust that totality. It is this current insufficiency that motivates both further research within specialized domains and the telos of rational

knowledge of the whole. The incompleteness of scientific knowledge when it is considered at any actual historical stage means that the map of knowledge contains certain blank spots not covered by any existing methodical inquiry. Interdisciplinary inquiry can enter at this point to open up these blind spots through collaborative research that may eventually lead to the fixing of a new domain within the totality of scientific knowledge.¹⁰ Disciplinarity and interdisciplinarity in this sense are co-constituted; one is not prior to the other—though I want to push on to a conception of interdisciplinarity that is more fundamental than both owing to its reference beyond university-based knowledge structures to those based in the socio-historical lifeworld.

Even so, again, a qualification regarding this “blind-spot” conception of interdisciplinarity is in order. Issues from the wider world do make their way into specialized disciplines and often contribute to the interplay of research and ground plan. The persistent and worsening environmental crisis has had its effect in almost all the disciplines, but notice that however one might address that crisis as an engaged citizen or simply as a human being, it is not taken up into disciplines in this form but in a revised form consistent with the disciplinary ground plan. We now have environmental sociology, the politics of the environmental movement, environmental economics, environmental ethics, and environmental philosophy, and so on, but in each case the lifeworld situation that gave rise to this development is sliced up and addressed piecemeal through the creation of new subdisciplines. There seems to be something necessary in this development. First, this seems to be the only fashion in which a pervasive problem can influence disciplinary research. Moreover, one cannot address an issue, however crucial, without making some divisions, separations, and simplifications. Nonetheless, this necessity is not the same as the reconfiguration of lifeworld issues within disciplines based on their inherited sense of valid research issues, and we can begin to glimpse here that things could be divided up differently altogether.

Perhaps this account of a discipline seems somewhat antiquated and inadequate to contemporary practice. If so, it is because belief in the unquestioned viability of disciplinary research has been waning for at least a generation and several other forms of knowledge have come into being that not only challenge the disciplinary past but also propose

alternatives for the future. It is to these that I now turn. As in the previous case, I will draw upon two forms of knowledge and study with which I have experience: communication, which I would call a *topic* of study, and the humanities, which I would call an *interdisciplinary* study. A topical study is unified by its thematic focus and draws widely upon whatever literature or research pertains to that topic. While studies within humanities are often topical—one can study communication, friendship, or power—in an interdisciplinary study the topic must itself be justified, which means that it takes its unity from certain classical questions about “the good life.” The unity of humanities is in the tradition of the humanities, and it is within this tradition, including its critique and reformation, that the validity of a topic is addressed.

TOPICAL AND INTERDISCIPLINARY STUDIES

Communications studies has been constructed as a contemporary form of inquiry by means of a synthesis among studies in the social sciences provoked by the growing influence of mass media on society, the classical tradition of rhetoric, and studies of interpersonal communication that, for reasons both endemic and ideological, are pervasive in contemporary liberal-democratic capitalism. (See, for example, Pearce 1989, chap. 1; Peters 1999, introduction.) It is topical in the classical Greek sense, that is, it focuses on a “place” that allows debate, disagreement, or agreement about “the same thing.” For instance, one may ask, “Is advertising propaganda?” Such a question allows one to define various standpoints toward the contemporary role of advertising and to argue for a developed perspective that is one’s own. The advantage of organizing inquiry in this way is that the questions that motivate it are widely perceived as important social questions so that the inquiry retains a relevance to social action and may even be a form of social action itself. The perspective of agenda setting in media studies, for example, explores the way in which social issues are framed and organized by the media such that certain perspectives on social issues are preferred. This is illustrated in the well-known tag, “The media do not tell the public what to think but what to think *about*.” Insofar as communication studies take this general form, they

constitute a contemporary reinvention of classical rhetoric. As Aristotle claimed, rhetoric is concerned with “the means of persuasion on almost any subject presented to us” (1984, 22, 1355b), a practice that is not science but is nevertheless indispensable to science. A doctor needs not only medical knowledge but also what used to be called “a bedside manner,” that is to say, a capacity to interact adequately with human beings, in order to be a good doctor. To repeat a classical example, the best medicine in the world is no good if the patient can’t be persuaded to take it. Understood in this way, the contemporary rediscovery and reinvention of rhetoric corresponds to the need of a scientific and technological civilization for a thoughtful interface between specialized knowledge and public belief. In addition to scientific knowledge of whether 770 parts per million of symfonisticus whatsoeveride has this-or-that effect on a lake, there is the issue of persuading the public that such a level is safe, or not safe, a problem or not a problem. For this reason, rhetorical issues and studies, both theoretical and practical, while they are fundamentally distinct from science, are called forth to an increasing degree by a society permeated by specialized knowledges. They inhabit the realm where politics, argument, and decision about the good life are recovered and reinvented. Truth can never displace opinion entirely, not even as an object of study, since scientific knowledge is limited to that which has already been studied, whereas the layperson must make judgments that necessarily implicate new, not-yet-studied issues. The question of what needs to be studied is not primarily a scientific, but rather a political question, in which the rhetoric of science and technology plays a key role—even though it is not divorced from truth—that surpasses science and incorporates this rhetorical dimension.

In stressing the rhetorical vocation of communication studies, I am suggesting that the larger optic of the topical studies selected—such as advertising, political speeches, expert discourses, etc.—is that of the humanities. Rhetoric is one of the classical approaches to the study of the humanities, and when one raises the question of why a topical study is important or useful, it is necessary to engage the classical tradition of the humanities in which one of the central defining questions is: What is the good life for humans? Humanities is an interdisciplinary because it takes as its common field of inquiry the outstanding texts, which puts it

into dialogue with the totalizing philosophical, religious, and mythical approaches, as well as the formation of founding scientific texts that have emerged from these traditions. It is perhaps nothing other than a name for the Western intellectual tradition as such, with an emphasis on those texts that have played a formative role within it. For that reason, humanities studies are drawn toward a very classical canon, but this tendency is not uncontested. Insofar as the classical tradition is centrally organized around the question of the good life, when properly understood it provokes and allows contemporary questions about the adequacy of the received tradition and opens to new and non-canonical texts that speak to this question in our own time.

The tradition of great humanities texts is not a tradition containing the truth but is a tradition in which the search for truth is centrally organizing. Some texts in the tradition claim religious, metaphysical, or scientific truth, but the tradition as a whole asks us to analyze how these claims are constructed and to whom they speak, and to put them alongside other such claims. The model of rhetoric is thus a key approach to the humanities tradition, and it has only one real competitor—philosophy. Human passions and will permeate persuasion at least as much as the search for truth. Whether the dominating pole in the study of the humanities is rhetoric or philosophy depends on whether human passion and will should be yoked fundamentally to the search for truth about the way for humans to live or can be justly pursued without such a yoke. If one judges for philosophy, there is still a place for a subordinated rhetoric to reach the passions, to form them to serve the exorbitant desire for truth. This approach to the humanities can be called Socratic. The debate between philosophy and rhetoric reaches back into the foundation of the humanities and is rediscovered daily within interdisciplinary studies through the manner in which one justifies one's topics in relation to what the demands of the good life are now. This debate provides a central locus for interdisciplinary studies that does not rest on an expectation of the unification of knowledge. Modern knowledge could not be thus unified without shedding precisely those features that distinguish it from the all-embracing totality dominated by religion that characterizes pre-modern forms.

WHY INTERDISCIPLINARITY NOW?

After sketching the institutional determinants of the question of interdisciplinarity, it was suggested that we must ask about the destiny of thought, and its institutional formation in the university, within the changing temper of corporate and government forces and the challenges posed by social movements in proposing non-disciplinary traditional and emergent knowledges. With the previous reflections on forms of knowledge within the contemporary university in mind, I will attempt to track the tensions involved in the *now* of the question of interdisciplinarity.

Let us begin by acknowledging that the previous stage of the interdisciplinary project, which we might associate with the great attempts of phenomenology and the Frankfurt School to unify knowledge under the banner of “critique,” is finished. The grand attempts to synthesize specialized knowledges under an encompassing architectonic are over. Similarly, the correlative attempt to decide the role of knowledge in social enlightenment directly through an inquiry into the structure of knowledge itself is finished. Any knowledge that an individual, or a group of individuals, might possess in our contemporary context is both *partial* and *political*. I mean that we have become aware of the limits of the knowledge that we possess and sensitive to the complex role that it might play in social conflicts. This does not mean, as some have extravagantly claimed, that there is no knowledge. It means rather that we are drawn in our time toward an awareness of both the limits and the social pertinence of any inquiry. Insofar as interdisciplinarity is constructed through its rhetoric of “overcoming arbitrary boundaries,” it signifies that the edges, or boundaries, of knowledge have now become essential to the ongoing inquiry itself. Disciplinary studies could hope to accumulate results in a manner that postponed the question of social relevance and conflict by justifying an individual inquiry within the accumulation of disciplinary knowledge rather than directly with reference to its practical import. No longer. These questions now arise in the course of each specific inquiry. Each inquiry must address within itself the question of how its particular results are relevant to the good life.

I think that there are two issues here that every researcher must confront: one to do with the larger constellation of government, corporate

economic forces, and the university and another within the practice of inquiry itself. Both of these are in turn crucially confronted with the changed, and changing, relation between specific inquiry and the larger context of the good life that has become visible with the unsettling of disciplinary boundaries. These two issues can be focused with reference to two leading questions: Knowledge for what, and whom? How much is enough knowledge?

Industry and government will continue to promote multidisciplinary co-operation on topics in which they take an interest. This will often provide the context and opportunity for interdisciplinary studies in the sense in which I am discussing them here. While it is in principle possible that such studies could coalesce into new disciplines such as cybernetics, systems theory, complexity theory, or cultural studies, it is more likely that their interdisciplinary focus will remain restrained by the prior definition of the goals of research within these institutions. As long as the goals of inquiry are defined outside the process of inquiry itself, not subject to radical revision, then the prior institutional definition of the topic and the reasons for interest in it remain fundamentally static. The “what” and “for whom” of knowledge remain statically defined by these institutions. The question of how much knowledge is sufficient is essentially answered by whether further funding is forthcoming, and this question is answered by the exigencies of profit and political legitimacy (in Weber’s sense). University-based researchers will have to take into account this poor cousin of interdisciplinary studies, especially since the corporate model of research and its attempt to reorganize the university through funding priorities may be expected to continue apace. It is here that the remaining freedom of university-based researchers to choose their topics and methods of study is a crucial element of realizing the radical potential of interdisciplinary studies.

It seems to me that this radical potential is most evident when university studies, especially in their interdisciplinary form, come into contact with non-disciplinary knowledges. By non-disciplinary knowledges I mean those knowledges active in the lifeworld that contain a totalizing character comparable to those of religion, myth, and philosophy that preceded the modern form of knowledge and its disciplinary specification. Traditional Aboriginal knowledges and the emergent knowledges

motivated by critical social movements are most important here. Linking interdisciplinary research to such lifeworld knowledges is the most important nexus through which the potential of interdisciplinary research might be realized. To call such knowledges “non-disciplinary” is to define them negatively through comparison to university disciplines and is therefore not, in the final analysis, sufficient. Their salient critical characteristic is that they are knowledges *constitutive* of a way of life, not simply ideas that one may take or leave without measuring them, and being measured by them, by reference to the standard of “what is the good life for humans?”

Here, “knowledge for whom” must mean for those who are engaged in the way of life within which this non-disciplinary form of knowledge operates. The “of what” and “when is enough?” questions must be answered by the participants themselves. Students inevitably confront these questions and seek to understand the reasoned but provisional answers that teachers have come to in their own practice. Interdisciplinary inquiry is thus “existential” in the sense that it engages with and educates the life-practice of those who undertake it. For this reason, the radical potential of interdisciplinary studies revealed by its contact with non-disciplinary knowledges is the revival in contemporary form of the classical role of knowledge as enlightenment, thinking for oneself, as a component of a good life. It must encounter the classical debate between rhetoric and philosophy in grounding the practice of enlightenment. There will always be a tension with university-based knowledge, but, especially in the intentions and practices of learners, university-based knowledge is pulled toward its true root in thinking as an essential activity of humans insofar as they are humans. Knowledge is not, and cannot be, unified under a grand value-laden umbrella such as predominated in pre-modern religious forms, nor in the architectonic through which German Idealism attempted to synthesize modern knowledge, but is focused through the life decisions made by learners, recalling that teachers remain learners, as they reflect on the “for whom” and “how much” issues in a practical context.

Self-reflection in the construction of a good way of life is the telos of interdisciplinary studies. The fundamental division between rhetoric and philosophy in defining this telos can be illustrated with a reference to Plato. In the *Apology*, after Socrates has been found guilty as charged, but

prior to his proposal that he be punished, or rather rewarded, by being given free maintenance by the state for his services, he explains his lack of interest in politics and the other activities recognized in Athens in order to remark that

I set myself to do you individually in private what I hold to be the greatest possible service: I tried to persuade each one of you not to think more of practical advantages than of his mental and moral well-being, or in general to think more of advantage than of well-being, in the case of the state or anything else (1993, 61, 36c).

The key phrase here, I think, is “each one.” Philosophy persuades each one through appeal to the recognition of logos by the individual soul. It is not limited to the persuasion of one, of course, but persuades as many as it persuades one by one. Philosophy thus eventually may affect the political order, may even be the most needful thing for the political order, but it does not aim at affecting the political order directly. To directly aim at the political order one must persuade all, ideally, or as many as possible, to do what one thinks is best. It is in the difference between persuading one and all that the difference between philosophy and rhetoric consists. The telos of interdisciplinary studies, understood to be self-reflection in the construction of the good life for humans, encounters and incorporates this difference in its teaching practice. I will not here attempt to resolve this issue. I argue only that our teaching encounters it, students encounter it, and thus clarity about this issue is crucial to interdisciplinary education.

REFLECTIONS ON METHOD

After sketching the form of modern knowledge, we asked about the relation between the methodical inquiry that produces empirical knowledge and the hermeneutical interpretation of meaningful texts. Or, what is the relation between the pursuit of knowledge and values such as democracy?

Empirical science produces data and information that is potentially useful, but it does not necessarily inquire into the uses to which it might be

put. It does not enter the discourse of justification of ends. It is thus a form of persuasion pertinent to a scientific-technological society cut off from the question of the good life—intrinsically, though its best researchers may enter the discourse on their own responsibility. Hermeneutical interpretation of texts must encounter the question of the good life, though it is also possible that this question be tamed by considering it “objectively,” that is to say, by considering only what the text says and not what the reader says and lives. Such a tendency is a crucial consequence of the development of hermeneutic method within the modern form of knowledge. The crucial difference here is that for empirical inquiry the text is assumed to be transparent in order that knowledge can speak directly of the states of the world. For hermeneutic inquiry the text requires interpretation, as the world is present, insofar as it is present, within the text as the inscription of a way of life in the world. The transparency or non-transparency of the text thus condenses the issue of the relation between text and world.

I take it that we have learned not to counterpose these two as if they were simple opposites, but neither are they identical. Let me thus propose a way of understanding textual (non)transparency as the key linchpin between hermeneutical and empirical sciences. A fundamental either-or relationship, rather like a gestalt picture in which figure and background are reversible, underlies all interdisciplinary knowledge that attempts to fulfill its potential: the tendency to convert the value-laden inquiry into the true, the good, and the beautiful into empirical data and the countervailing tendency to interrogate empirical data regarding their usefulness for the good life. Each one appears insofar as the text is superseded by the world or the world is figured within a text. (Non)transparency defines an inquiry as either hermeneutic or empirical. This is not a matter of disciplines, as the pluralism and eclecticism of methodologies of the past several decades should show us, but of fundamental tendencies in contemporary interdisciplinary studies. These fundamental tendencies are rooted in the debate between rhetoric and philosophy, a debate that is classical but which has taken on new and more radical forms today.

Humanities, understood as the history of texts recognized within the tradition of the humanities, converts the founding texts of empirical traditions back into classic texts of the humanistic tradition. One reads Freud not as the founder of psychoanalysis but as crafting new approaches and

responses to questions that also animated Plato and Hegel. One reads Marx, Durkheim, or Weber as classic commentators on the social condition and not as founders of research traditions. But, given some provisional answers to these classic issues, one can read these, and indeed any, of the classic texts as founders of traditions of empirical inquiry. It is not fundamentally a question of disciplines but of forms of reading, of inquiry in which any text can be read either way. To the extent that one animates this either-or relationship of entry/exit from value-laden hermeneutic reading to research domains, one enters into dialogue with the forms of the good life proposed by non-disciplinary knowledges.

Research domains provide resources for rhetorical argument that seek to reach all, or nearly all, actors in the political order. Value-laden hermeneutic readings provide orientation for the individual soul. Interdisciplinary education provides the means both for public argument and for each one to tend to the proper organization of his, or her, own life. These are somehow related, of course, but how? Again, we should not design the curriculum, or the method, to produce an answer to this question, but rather to provide the resources from out of which the learner will come to an answer sufficient for his or her practice—such that this practice will define when the text is sufficiently transparent to found an empirical inquiry or sufficiently opaque to demand hermeneutic interpretation.

FINAL WORD

Interdisciplinary studies require us to situate our university studies in relation to the government and corporate forces that promote monopolies of knowledge in the neo-liberal political and economic climate. They entail a critique of university structure that poses basic questions for the modern form of knowledge. They require that we encounter non-disciplinary, extra-university knowledges—either the emergent knowledges based in social movements or the traditional knowledges based in forms of life—without beginning from their in-principle denigration. In so doing, we encounter the classical question of the good life for humans. We must be able to discuss this question intelligently in a contemporary context. Such discussion will encounter, in a contemporary form, the classic opposition

between rhetoric and philosophy, between the “all” of the political order and the “one-by-one” of philosophy. Interdisciplinary learners often feel adrift because they cannot locate their studies within contemporary recognized forms. One remains adrift but garners essential points of orientation through this classical debate. This debate must be re-encountered through contemporary materials and issues, but it also gains clarity from sufficient exposure to classic texts. The focus, or “unity,” if one wishes, of interdisciplinary studies is in the learner’s grappling with living the good life. The teacher only properly teaches when this grappling is made evident to the student not as model but as example. What one needs to live well is not available by prescription.

NOTES

- 1 I do not mean to imply by recounting this story that my understanding of the issues was at that time sufficient or that I had adequately investigated existing possibilities within the discipline. Nonetheless, thought is often usefully provoked by such decisions taken without complete, or even sufficient, knowledge.
- 2 Later, I was asked to write an essay on interdisciplinarity based on my experience in writing that book. I was surprised and chastened to find that I had nothing to say on the matter. Filling this absence was a large motive in not declining a second time when I was asked to give a lecture on the topic by Richard Ericson at Green College, University of British Columbia. I have used that lecture—“Models of Knowledge in a Disciplinary World: Research, Rhetoric, Socratism,” delivered on 6 November 2001—as a starting point in this essay and remain grateful to Richard for provoking me to say something on the topic. It is not easy to say what one does, as opposed to what one hopes or expects to do, but it is a failure not to be able to do so. I hope that my response to the current invitation by Raphael Foshay has taken me further in this direction.
- 3 The need for judgment, rather than the application of a rule, puts the matter within the realm of rhetoric, according to Aristotle: “The duty of rhetoric is to deal with such matters as we deliberate upon without arts or systems to guide us” (1984, 27, 1357a). This realm was also what Hannah Arendt thought was central to politics. Her concept of judgment was derived from a reading of Kant’s *Critique of Judgment*. See Arendt 1968, esp. 219–23; and Arendt 1982. See also Angus 1984, chap. 5.
- 4 I have extended Harold Innis’s concept of monopolies of knowledge to describe the conflict between knowledges and the emergent knowledges of social movements in Angus 1997, 68–71, and in Angus 2001, esp. chap. 3.
- 5 This additive concept of interdisciplinarity—which is more descriptively called

multidisciplinarity—assumes the distinct validity of each specialized discipline. See Wallerstein 1999b, 246.

- 6 Before one jumps to the common conclusion that the new physics was Platonic, in distinction from the Aristotelian science of the Middle Ages, it must be noted that mathematics had undergone a significant reformation since late antiquity such that it was based on a “symbol-generating abstraction” without direct reference to experienced objects. Unlike the ancient *arithmos*, which referred to “a definite number of definite things,” the mathematics taken over by Galileo “intends another *concept* and not a *being*” (Klein 1968, 46, 174). The severing of concept from intention of experienced objects grounds the two other major characteristics of this form of knowledge. It is only the symbol-system *as a whole* that can be brought to refer to a domain of objects, and the symbol-system, by virtue of its abstraction from experience, becomes *systematic* in the sense of postulating an internally consistent and transparent relation between concepts.
- 7 Though his historical reconstruction differs somewhat from mine, this evaluation is shared by Immanuel Wallerstein: “I believe we are living in a moment in which the Cartesian schema that has undergirded our entire university system, and therefore our entire edifice of specialization, is being challenged seriously for the first time since the late eighteenth century” (Wallerstein 1999a, 163).
- 8 The notion of a ground plan (*Grundriss*) is taken from Martin Heidegger, “The Age of the World Picture.” Heidegger brings out the manner in which “through the projecting of the ground plan and the prescribing of rigor, procedure makes secure for itself its sphere of objects within the realm of Being” (1977, 118). But Heidegger’s conception of the ground plan severs this clearing from the ongoing research that it makes possible, missing the “interplay” between the two which I describe in the text, and therefore also missing the disagreement that occurs within scientific debates within the ground plan, and the narration of the history of the discipline that recovers disciplinary unity despite debates. Heidegger’s failing in this regard is based on his more fundamental severing of ontological from ontic dimensions of the ontological difference. See Angus 2004.
- 9 Characteristically, one author dates the onset of the scientific study of society to the 1860s and 1870s and defines it precisely through its break with common-sense observation. See Mazlish 1989, 130, 243. However, according to the Gulbenkian Commission, institutionalization of the separated social sciences occurred mainly between the 1880s and 1945 and was fully implemented in many places only in the 1950s and 1960s. See Gulbenkian Commission 1996, esp. chaps. 1 and 2.
- 10 This is the meaning of interdisciplinarity used by Ivan Havel and distinguished from multidisciplinarity and transdisciplinarity. Havel cites cybernetics as an example of a new science emerging from the interdisciplinary combination of established disciplines. He reserves the term *multidisciplinary* for the study of a common theme with a plurality of methods drawn from different disciplines. *Transdisciplinarity*, in Havel’s terminology, refers to the study of a concrete idea or phenomenon that occurs in a plurality of different sciences—such as catastrophe, chaos, co-operation, etc. See Havel 2008,

as well as his paper “Artificial Intelligence and Connectionism: Some Philosophical Implications,” available at <http://www.cts.cuni.cz/~havel/work/ai-cvut.html>. My characterization of his views is also based on his talk “The Universe of Knowledge: On Interdisciplinarity and Transdisciplinarity,” given at the founding conference of the IDEAZ Institute in Vienna on 2 October 2005.

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3

Interdisciplinary Ensembles and Dialectical Integration *A Proposed Model of Integrated Interdisciplinarity*

WENDELL KISNER

NON-DIALECTICAL ENSEMBLES

Unification Through Differential Tension

The kind of model I call a “non-dialectical ensemble” can be aligned, at least initially, with a Heraclitean/Heideggerian conception of unity in difference. Its justifications will have to be worked out on a phenomenological basis, and its specifically Heideggerian implications will have to be spelled out with respect to a phenomenology of culture that can be articulated through Heidegger’s philosophy of art. But first let’s look at the relevant Heraclitean passages:

That which is in opposition is in concert, and from things that differ comes the most beautiful harmony.

They do not understand how that which differs with itself is in agreement: harmony consists of opposing tension, like that of the bow and the lyre.

War (*polemos*) is both king of all and father of all, and it has revealed some as gods, others as men; some it has made slaves, others free.

Things taken together are whole and not whole, something which is being brought together and brought apart, which is in tune and out of tune; out of all things there comes a unity, and out of a unity all things.¹

The model is that of an ensemble in which the tension between the various elements within it, in their interplay, bring about a unity that is nothing other than the differences that make it up. Hence Heraclitus says, “Out of all things there comes a unity”—that is, out of and across the differential elements gathered together in the ensemble, a unity emerges or is produced—and “out of a unity all things”—that is, each element becomes what it is through its differential tension with respect to the others, and hence the identity of each emerges or is produced through that tension. Relation is not something produced between objects already constituted; rather the relation is primary, and the elements come into their own, as it were, in and through that relation. Conversely, the relation is nothing without the elements that mutually engage in bringing it about.

The key here is that the elements making up the unity are held together *in being held apart*—they don’t lose their mutual differences but rather those differences are precisely the unity—hence the necessity of *struggle* (*polemos*). This *polemos* is not necessarily the aggression associated with the valorization of war in the conventional sense. Rather, it emphasizes the fact that the difference between elements is essential. It is not a neutral melting pot that collapses the *differences between* the elements, but rather a dynamic unity of *polemos* that is unified in and through the tension across differences. The elements don’t precede the unity as self-subsistent atoms that then, subsequently, come into relation. Rather, they first emerge as what they are in and through the dynamic unity of struggle. At the same time, the “unity” here is nothing other than the interplay among the elements that make it up.

In Heidegger's appropriation of this Heraclitean paradigm, the unity of a given historical world is brought about through the dynamic tension of the creative works contributed within it. A historical world determines how things are manifest—for example, as creatures before a Creator in the Middle Ages, as objects observed by consciousness in modernity, or as a reservoir of constantly available resources and raw data in postmodernity. The specific determinacy of these various modes of appearance constitutes a unified “world” that is only brought about and established in and through the assembly of divergent works. The unique character belonging to each of those works is in turn only manifest in and through the context of that unity. In Heraclitean terms, across the ensemble of works a unity emerges, and that unity is nothing other than the differential tension operative among and across the works themselves—out of all things there comes a unity and a unity out of all things. “Truth,” understood in its ancient Greek sense of disclosure or unconcealment (a more or less literal translation of the Greek word for truth, *aletheia*), is the measure or set of limits that determines the specific way beings as a whole are manifest in a given historical era, and it is a measure that is neither eternal nor given in advance of human achievement. Rather, it is a measure that has to be established through and across creative human works—works such as those of architecture, visual arts, music, poetry, politics, philosophy, science—the whole range of human works with no advance determination about how these works might be hierarchically arranged with respect to each other. The unity of “culture” can be understood as precisely such a measure established across an ensemble of works in this fashion.²

The kind of philosophical thinking Heidegger engages in calls into question the objectivistic stance of a reflective consciousness set over and against a subject matter or object that is to be theorized about or observed. This setup, he argues, belongs to an ontological framework that not only fails to uncover more basic levels of experience but does so in a way that overlooks the primary phenomenon of human existence as something inherently belonging to a world. In short, according to Heidegger such an ontology overlooks the world and replaces it with a worldless ahistorical subject set over and against a realm of objects. Hence rather than beginning with the assumption of a subject-thinker and an objective reality, Heidegger proposes to initiate a different beginning—one that begins

with a unified being-in-the-world as a basic feature of what it means to be human. We might borrow from Merleau-Ponty and call this a “pre-objective” level of being that is prior, ontologically speaking, to the representation of the world as an assortment of objects whose empirical or theoretical properties can be specified by an observing consciousness.

Following his mentor Husserl, Heidegger initially proposes to gain access to this pre-objective level of being through phenomenological inquiry. That is, by carefully attending to the way beings are manifest, we may thereby bring to light ontological determinacies that make possible the specific way in which these beings appear. To put it another way, “being” for Heidegger names the “phenomenality of phenomena” or the *manner* of appearance, and “beings” name *what* appears. Appropriating Husserl’s phenomenological methodology in such a way as to clarify ontological inquiry, and reviving the ancient Greek understanding of truth as “unconcealment,” Heidegger determines truth to be, not a correspondence of a proposition to a fact (as in “true” statements about things) but the most fundamental way in which beings are manifest. Thus the assembly of creative works in their differential tension brings about truth, the manifestation of what is (“all things”) in and through the specific historical character of a unified world (“unity”). Truth itself is not an eternal verity; it is nothing other than the way in which beings are manifest. Heidegger thereby proposes a historically immanent understanding of truth with respect to which the diversity of creative works is crucial.

Heidegger’s thinking is particularly attractive from an interdisciplinary perspective because he does not privilege the philosopher or even ideas per se (as the Western philosophical tradition from Plato to Hegel tends to do). If, as Heidegger argues, the measure of truth gets established historically across the entire ensemble of works, then it will be the ensemble, not the philosopher (including Heidegger himself), that determines what is hierarchically ordered, if indeed anything is to be. A model for interdisciplinarity derived from this account might be called a non-dialectical ensemble of unification through differential tension. Under this model, integration is not imposed from the top by an overarching unity, nor is it something merely added to elements conceived as already present and complete. Rather, it is something that emerges in and across the differential tension between the various disciplinary approaches that enter into the arena of

polemos. It's not that there are no pre-existent elements already present in any way at all, but rather that through the interrelations these elements are in the process of becoming, such that what emerges through the process is an identity and integrity of each that was not simply present in advance. In an interdisciplinarity brought about in this way, the mutually interacting disciplines are not hermetically sealed enclosures persisting in mutual indifference but rather are elements in dynamic tension with the other elements in the field. Furthermore, the unique character of each discipline is manifest as such through its interaction with those other elements. This model then is more than one of mere communication in which isolated participants are understood to communicate across the disciplinary gulf that separates them while remaining unaltered themselves.

Limit Conditions: Polemos as Dramatic Script or Musical Score

The arena of *polemos* consists of the limit conditions within which interplay can take place, much as the script of a play or a musical score can specify the limit conditions within which a dramatic production or a musical performance can occur. These conditions can be more or less predetermined, but they never exhaust the possibilities in advance. For instance, a classical-period musical composition can overdetermine these limits in advance but still not exhaust all the possibilities of performance; on the other hand, a more improvisational composition can set up a space within which the flexibility of performative variation can occur.

Relying on the work of Charles Bigger (2004), we might say that this notion of a set of limit conditions that mark out a space within which creative variation can occur and differential unity can emerge is close to Plato's late conception of the "form"—the *eidōs* or *idea* stands to variational becoming as a plot does to a play or as a score does to musical performance: "Form is to a process as a plot is to a play that could have been played in many different times and places, languages, societies, and the like. Each is the play; none are its clones" (2004, 89). Furthermore, these limit conditions are not themselves fixed and established once and for all—what constitutes the play or the musical piece in this case can change with the performative interpretations (a possibility of change within the "form" itself that Plato acknowledges in the *Sophist*, 249a–b). Thus the limit conditions themselves are always open to reinterpretation

and challenge. The only constancy is the necessity that there be limit conditions. In Plato's late theory of the forms, the constant necessity of limit conditions might be taken to be the "eternal" aspect of the form, and the transcendence of possibility over the actuality of any given state of affairs, a possibility opened up by those limit conditions, is the *chorismos* or gap between "being" and "becoming," a gap whose terms are always contestable and open to reinterpretation.

Similarly, possible limit conditions faced in an academic context might be the external standards and expectations imposed by the state, the predispositions and disciplinary proclivities each person brings to the table, the overall vision of the specific identity and character of one's academic community as a collectively negotiated project, and exactly who and what will be involved in the whole process. Some of these are predetermined, but we can also specify what limits might better enable us to engage in something productive and interesting. To invoke the musical analogy again, in composing a piece of music for performance, I will encounter certain predetermined limit conditions—my natural abilities as well as those I may have achieved up to that point in time, the level of musicianship required by the piece vis-à-vis what is actually available or practically achievable, the desires/tastes of the target audience, perhaps externally imposed expectations (e.g., if the work is commissioned), and finally the overall historical context within which certain musical structures are seen as being more acceptable or palatable than others. The score itself therefore already results from a set of limit conditions and the creativity (or lack thereof) that can emerge within them. Among these latter limit conditions I also find my own biases and predilections. Perhaps I am bound by my socially ingrained habits of hearing such that I expect certain kinds of harmonies and only recognize those as "musical." The score might be innovative or tedious depending upon these limits. These limits can be critically examined and thereby either overcome or modified. They will nevertheless in some sense form a generalized image or model of what I envision as the musical piece whose coming into being I want to facilitate. In this sense one might understand the model of interdisciplinarity presented here as a set of possible limit conditions that could be adopted in negotiating together with one's peers the score of the musical piece that is to become interdisciplinarity.

The Deficiency of Non-dialectical Ensembles

The kind of non-dialectical ensemble of unification through differential tension articulated by Heidegger boils down to whatever comes out in the wash. There is no *inner necessity* that such a non-dialectical unity possess one kind of character over another, nor are the elements of such an ensemble—beyond the common response to the call to make something happen—each *inherently* related to others by virtue of their own integrity or specificity. Indeed, even if a unique identity of each element were to become manifest through its differential tension with others within the field circumscribed by its limit conditions, any emergent unity may well nonetheless remain a matter of indifference to the elements themselves in their preoccupation with their own respective identities. As we will see below, an indifference like this can reassert itself in a still more entrenched fashion as a result of such emergent identity—even when that identity is only gained through interrelations.

DIALECTICAL UNITY

Following the general contours of Hegel's dialectical logic, we might formally articulate differential unity in terms of a logic immanent within various forms or shapes of unity, each of which shows itself to be self-defeating owing to inherent contradictions within it. The unsustainability of each in turn implies a new variation that in a way responds to the self-defeating character of its predecessor. The immanent logic that moves us from one shape to the next is what differentiates this model from the previous one, which articulated a *given* unity-in-difference through phenomenological analysis without being able thereby to posit any necessity to the specific shape that unity may take.

Leaving aside a detailed treatment of that immanent logic for now—a treatment which would require considerable analysis and justification—we can specify several of these forms or shapes of differential unity (keeping in mind that the appearance of mere juxtaposition can only be dispelled with the demonstration of the immanent logic they each imply).³ To put it another way, we can conceive of several variations on the dialectic between relation or relational unity, on the one hand, and the unique

character or integrity of each element within such relational unity, on the other, spelled out in terms of a critique of the category of “identity.” The deficiencies present in each variation imply a further development into or replacement by another more adequate version, and thereby can begin to provide an answer as to why integration should be regarded as better than fragmentation in the first place, thereby also suggesting a normative dimension lacking in the Heideggerian account.

Abstract Identity, or the “Melting Pot” Model

In this model, difference collapses into an indifferent sameness. Difference counts as a negative to be dissolved into the unity of an indifferent neutrality. The negativity is implicit insofar as difference is either barely allowed to emerge at all or is immediately subsumed under an overarching unity with respect to which it counts as something to be devalued. To put it another way, the unity appears explicitly as something positive and purely affirmative (e.g., “I’m an American before all else”), but is implicitly negative insofar as it must in addition negate the differences that are nonetheless present in order to reduce them to a subordinate status (“I’m *also* gay, female, Latina,” etc.). This is the unity of indifferent neutrality that collapses all differences into a primal soup—the “melting pot” model.

However, because of the character of the unity as indifferent neutrality, *it lacks both identity as well as unity* and is thereby self-defeating. The specific identity of any element present is due to its difference from the other elements. Without such difference the elements would be indistinguishable from one another. But that difference is precisely what is negated in favour of its unification with the others in the melting pot. Unity itself becomes seen as the “grand narrative” that erases or submerges difference. To the degree that such negation of difference provokes the reassertion of that difference against the overarching unity we get something like “identity politics.” But the identity thereby reasserted is in turn achieved *at the expense of* the overarching unity rather than *through* that unity. Although it may at first look as if the very idea of a grand narrative or overarching unity has been decisively rejected, such identity politics risks replicating the same melting pot model at the micro level—members of the group are identified as such in their unity under that group, but their specific differences from each other again fall outside their unity in the

group. The “identity” asserted becomes a mini-melting pot. The logic of this reversal may well facilitate the situation noted by Will Kymlicka (2001, 76) in which “traditional elites” within such groups exercise oppressive practices and rights violations over member of their own communities.

Needless to say, this model of unity does not appear to hold much promise for an integrated model of interdisciplinarity. Rather, we are left with the alternatives of fragmentation without unity or unification without difference, both of which alternatives are negative in their exclusion of their own other (difference excludes unity and vice versa). At best such a model might perhaps lead to an assembly of various disciplines under the umbrella of collectively promoted goals—an “additive and encyclopedic” form of *multidisciplinarity*, according to Julie Klein’s definition (Klein 2006), rather than interdisciplinarity proper. At worst it might merely collapse into an institutionally imposed mandate requiring compliance. In either case there is no “inter” in such an interdisciplinarity, still less an integration.

Unlike the usual assertion of identity politics, however, the problem highlighted by a Hegelian analysis is not a moral or ethical one. Rather, it is a logical one: such an abstract identity in the melting pot does not actually achieve identity, and the unity fails to unify insofar as differences fall outside it and must be reasserted against it if they are to count in their own right. The melting pot is a semblance of unity concealing its own inherent fracture.

Such abstract identity logically implies a transition to a subsequent stage. Insofar as the differences that the melting pot excludes must then be devalued relative to the indifferent neutrality of the melting pot itself, the latter can now only assert its own value by means of such exclusion. In other words, the movement is double: first the assertion of a neutral unity that subsumes differences, an assertion which remains naïve so long as the subsumed differences disappear from its view (e.g., the notion of liberal equality implicitly based on the model of the white male property owner, such as the assertion that “all men are created equal” in the American Declaration of Independence, initially fails to notice its exclusion of women and non-white races). But insofar as the unity here is a *unification* of those elements that are mutually different, that difference has to appear in an assertion *against* unity. The reassertion of the latter unity

now in turn must be asserted against those differences—the first naïve unity can no longer be taken for granted. This then generates a unity whose character is explicitly negative. The melting pot was indeed negative, but only implicitly. It had to wait for the assertion of its implicitly excluded differences to show itself to be the negativity that it is. Hence, now the identity asserted *against* unity, as well as the unity asserted *against* difference, both become explicitly negative.

We might conceive of such a unity as being forced to cast its net of inclusion wider, as has indeed happened historically in liberal democratic societies. For example, those who were previously excluded from the net—women, minorities, etc.—are now included under a wider umbrella.⁴ But nonetheless the assertion of those various identities *as different*—as women, as gay, etc.—is still negated in favour of a universality that does not include within itself the *particularity* of those identities. Such universality remains just as abstract as the identity asserted against it—it is a universality that subsumes particulars under it, but those particulars in their specific mutual differences still fall outside the overarching unity. And once again, when those differences are asserted against their implicit exclusion we get the same alternatives where each side only achieves its identity through a negation of the other: an identity asserted against unity as well as a unity asserted against difference. This mutual assertion *against* leads us to a notion of negative identity.

Negative Identity

This model is that of an identity whose unity with the other is negative. It is what it is by *not* being the other. This “not-other” is constitutive of its identity. However, its very negative relation to the other undermines any identity it might have in its own right. It only has an “apparent” or illusory identity that evaporates when its presuppositions are made explicit: “I know what I’m against, but I don’t know what I’m for,” or “You’re either with us or you’re with the terrorists.” In such a negative identity, any identity I have actually lies in the other. Insofar as that other is explicitly devalued, my own identity is implicitly devalued. If the other is likewise defined by such a negative identity, then we have a situation in which identity is always pushed outside oneself to the other. Any “identity” present is a semblance that conceals thoroughgoing dependence.

In a purely formal way this is where the two previously mentioned melting pot alternatives lead us: to assert difference against unity is to assert the identity of “difference” and hence also to implicitly negate difference in favour of identity (e.g., identity politics becomes a mini-melting pot). At the same time, to assert unity against difference is to set up such unity as something different from “difference,” and hence it is to implicitly assert difference rather than unity. Since each side can assert itself against the other—difference against neutral unity and neutral unity against difference—and since the negativity of that “asserting against” can remain under the radar at a merely implicit or covert level, each side can focus only on the unity or identity and simply ignore the implicit negative relation upon which such unity or identity is predicated. This leads us to a notion of a unity that is achieved through an indifference to difference. In other words, we can assert “our” identity as *not* x (we’re *not* terrorists, we’re *not* capitalists, we’re *not* socialists, etc.—we’re “us” because we’re not “them”) and then forget the “not.” Because of its prevailing indifference, it might be termed “mechanistic” insofar as the working parts of a machine are mutually external and indifferent to their operation within the mechanical process.

Mechanistic Identity

This model is that of a kind of identity that is only achieved through a relation of indifference and externality to others. Each element in a mechanistic system is external to the other elements and is indifferent to any action exerted upon it from the outside—even when such action from the outside determines what it is. Rather than achieving identity through negation of the other, identity is achieved through indifference to the other. Rather than “I am what I am because I’m not one of them,” it’s more like “I am what I am regardless of them.” This indifference lends a sense of self-sufficiency that remains unaffected by relations—regardless of what happens out there, I still am what I am. In this sense one might characterize the status quo in academia to be a mechanistic relation among the various disciplines: “You do your thing, I will do mine; maybe we’ll run into each other once in a while in the hallway.” Ayn Rand’s “ethical egoism” (an oxymoron) fits in here as well: “I’m under no obligation to do anything that’s not in my self-interest.”⁵ Or Milton Friedman’s “fiduciary duty” that

is indifferent to how it may affect stakeholders outside the contractual relationship.⁶ Such identity gains its self-sufficiency at the price of collapsing relations into one of mutual externality and indifference.

But insofar as such mechanistic identity even on its own terms is still implicitly negative in its very indifference—that is, insofar as unity here is achieved through the negativity of mutual indifference—such unity still needs the difference from others in order to be indifferent to them and thereby to gain the self-sufficient character of its identity. Once that very self-sufficient character—an identity that is more than a mere formal difference from others—is itself seen to require relations to others nonetheless, we are led to a conception of “integrated unity” in which the differing elements are unified through their specific differences rather than in spite of them.

Integrated Identity

This model is that of a positive identity, but, rather than being maintained through an indifference to others, it is an identity that is produced in and through its relations to others. Relations don’t undermine the self-sufficient character of its identity but rather establish it. Each identity is what it is in relation to the others, and in such a way that neither the self-sufficient character of each element nor the interdependent relations between them are compromised. The “Jewel Net of Indra,” a Buddhist image, comes to mind here: a vast net of jewels in which each jewel contains the reflection of the others. This also suggests Rousseau’s political paradigm, later developed by Hegel in a way, in which I gain self-determining freedom and thereby first truly become who and what I am in and through my association with other citizens in a common deliberative political space, a unity in which the multiplicity of actors and the unity of participation are one and the same thing. Difference is no longer compromised nor merely opposed to unity. Identities establish real self-subsistent integrity in their mutual differences not at the cost of relations but through them. On the other hand, the self-sufficient character of each identity is not lost in relations but is only thereby established.⁷

This kind of unity through the interrelations of integrated identities I will call an “integrated unity,” and is the preferred model of unity I take from Hegel. Applied to interdisciplinarity, I will call it “integrated

interdisciplinarity.” Here we might conceive of the various disciplines not just coming into an aggregated assembly in which their mutual relations would remain external to the inner identity of each, nor where each would maintain its identity either in a merely negative or indifferent relation to others, but rather an integration in which each discipline becomes *more* than what it might otherwise be independently of its relations and *thereby* gains a singular identity it would lack without those relations. If the kind of unifications possible with abstract, negative, and mechanistic identities are ultimately self-defeating, we are left having to come to grips with the kind of integrated unity we want.

Pragmatics

Exactly what the specific character of integrated interdisciplinarity will look like cannot be specified in advance. That is, exactly how the gap between the “being” of limit conditions and the “becoming” of differential interplay gets negotiated has to be worked out empirically, as does the character of the integrated identity that emerges through mutual participation. Any presumption to determine this in advance beyond the formal indications given here risks asserting a hegemony of the specifically philosophical discipline over the others in the playing field. From a philosophical perspective I can say what I think it might look like in general/universal terms, but this has to be fleshed out in the actual interplay between all of the players through the integrity of their respective work. Only through such work, in working together to determine what integrated interdisciplinarity means concretely, can it be ultimately determined whether the model presented here is an abstract or a concrete universal.

That model itself integrates the two models just presented. On the one hand, it preserves the Heideggerian/Heraclitean model of unity in and through the assembly of difference in its facilitation of creativity, a mutual interplay that is not presided over by a predetermined hierarchy of disciplines but which will always be responding to a set of limit conditions that can facilitate such creativity in varying degrees. On the other hand, it preserves the Hegelian model of integrated unity in which the specific character of the identity of the elements entering into the unity are themselves established and further developed through their interrelation with

the other elements present. The latter provides the normative dimension for the former, preventing it from collapsing into a melting pot as well as from becoming either merely negative or mechanistic. In view of the pragmatic work that remains to be done and the open future of interdisciplinary studies, I suggest the model as itself a possible paradigmatic limit condition that might better enable the articulation of the collaborative space within which something like an “integrated interdisciplinarity” might flourish and define itself.

At this point I would like to look at some examples of how specific disciplines have interrelated in an integrated way. These examples will serve not only to provide possible instances of integrated interdisciplinarity, but will also themselves suggest further developments to the model. The model is therefore fluid in that it invites its own development through the practice of integration.

INTEGRATIVE UNITY, ARTWORKS, AND PHILOSOPHY

Since I am most familiar with philosophy—and with certain philosophers at that—I will draw from that field some of what I take to be a salient moment promising a direction toward the kind of integrated unity in which more than one discipline mutually interacts and is each enhanced and further developed through that interaction. Because I am not an expert in more than one field, however, and because I am not collaborating with anyone in this essay, my examples do stem from the philosophical side of that engagement and may thereby inadvertently emphasize the kinds of implications that are more interesting to philosophers over other kinds of implications that might become prominent with a different disciplinary point of departure. This may indicate a need for the kind of collaborative work in which individuals from various disciplines actively take part in mutually engaged inquiries that are not mediated by the temporal distance that prevents inquirers from various disciplinary perspectives from being co-present in their inquiries, a problem that affects the examples cited below.⁸ We should also note that the various schools of thought found within any given discipline may either facilitate or hinder integrated interdisciplinarity to differing degrees. Some may be

more amenable than others to such integrated work. Insofar as any choice of examples will necessarily be limited, we also must acknowledge the possibility that not all *kinds* of disciplines may be amenable to mutual integration in the same ways. The specific character of each discipline may call for a particular kind of integration, and this specificity may well exceed the level of detail indicated in the model presented here. My proposed model may be able to accommodate those specificities, however, without necessarily articulating them in advance. I will conclude with the examination of a study that follows the spirit of Heideggerian practice just mentioned in integrating philosophical reflection with non-discursive works of art in such a way that not only wards off the hegemonization of one over the other, but which also demonstrates their mutual development through the interchange.

HEIDEGGER: PHILOSOPHY AND POETRY

As previously mentioned, in that Heideggerian thought does not privilege philosophy over other academic disciplines it looks promising from an interdisciplinary perspective. Heidegger's understanding of history in fact brings us to ask how non-discursive works might contribute to truth (i.e., to the way beings as a whole are manifest in a given historical era). Since access to the unconcealment of being is not exclusively or indeed even primarily philosophical, this drives philosophical thinking outward to seek neighbourhoods in which other modes of disclosure can mutually commune. Heidegger himself sought such communion with poetry, verbalizing the noun "neighbour" (*Nachbar*) to signify how philosophical thinking and poetry might "neighbour" together in such a way that the space of unconcealment—the space of truth—is opened.⁹

If the objectivistic stance of the modern subject is a superficial ontological horizon that conceals more fundamental modes of unconcealment, suspending that horizon in order to render those more fundamental modes more explicit also opens the door to other kinds of works that may not only reveal things at that pre-objective level but which might even contribute to establishing the very horizon that reveals them in that way.

In this way the theoretical stance of thought is no longer privileged, and thinking is brought into a neighbourhood over which it no longer presides.

In attempting to clarify the essential way that language shows itself, for instance, Heidegger claims that rather than randomly picking examples of language, one should look at what is spoken “purely.” That is, one should look at something that is spoken in a way that establishes or renegotiates the essential limits of the disclosive power of speech. Furthermore, this establishing of limits must be preserved in what is spoken in such a way that it is accessible to the phenomenological thinking that Heidegger engages in. What kind of speech is this purely spoken word? In “Die Sprache,” an essay explicitly devoted to language, Heidegger writes, “What is spoken purely is the poem” (1971, 194). For Heidegger, it is in the poetic utterance that language most clearly reveals itself according to its own ontological character.

Hence philosophy can only clarify itself as a discursive enterprise that attempts to get at the truth by dwelling in the same neighbourhood with poetry insofar as the latter makes a decisive contribution to determining where the limits of language’s disclosive power lie. Similarly, Heidegger’s attempt to clarify the way human spatiality is set up and articulated by works of art prior to the Cartesian representation of space as homogeneous extension begins with reference to an architectural work—a Greek temple. It is no accident that Heidegger’s primary example of how a work of art establishes a space of unconcealment within which other beings are co-disclosed is a work of architecture that resists curatorial isolation as much as it resists the interpretation of art as a representation of something. The Greek temple, in opening up a region of unconcealment, simultaneously assembles and gathers within that region the beings that surround it—“tree and grass, eagle and bull, snake and cricket,” the storm (Poseidon) that only “rages” when the temple opens up the space in which it can be manifest in its violence (Heidegger 1971, 42).

The affinity between philosophy and poetry might be facilitated by the fact that they both, after all, deal with language. Heidegger does point in the direction of non-discursive arts when he examines the Van Gogh painting and the Greek temple, but these examples themselves are left rather indeterminate and generic in his account (we are told neither which Greek temple nor which particular Van Gogh painting is being discussed),

and the analysis thereby remains at a very general, if not removed, level. At this point I would like to turn to an example of the intersection of philosophy and the plastic arts that develops in greater detail several specific instances of the latter.

SCHUFREIDER: A PHENOMENOLOGY OF UNITY AND SPACE
THROUGH MONDRIAN'S PAINTINGS¹⁰

In Gregory Schufreider's analysis of Mondrian's work, he is able to clarify the model of unity as a decentred assembly of differing elements, each of which appears in its difference only in and through that assembly. Indeed, in his essay "Overpowering the Center: Three Compositions by Mondrian" (1985), the paintings of Mondrian are presented as graphic embodiments in a non-discursive format of precisely the kind of Heideggerian ensemble previously described. According to Schufreider, Mondrian appropriates the grid, which is often taken to be the quintessential representation of modern Cartesian space, and transforms it into something that opens out onto other kinds of spaces that are brought about through the paintings themselves. Through a phenomenological analysis of Mondrian's work, he shows that the colour planes of the painting frustrate attempts to organize the elements of the painting around a centre. Rather, unification is brought about in the work through the interrelations of the elements themselves without reference to either an underlying homogeneity or a central focus. Much like Heidegger's notion of how historical worlds get established, it is a groundless non-hierarchical ensemble of relations whose unity is nothing other than the differential mutual tension sustained between its various elements.

In a later essay, "Mondrian's Opening: The Space of Painting" (1997), Schufreider further develops this direction of philosophical reflection opened up by Mondrian's work. Although one might look to an artist like Mondrian in particular for integrating philosophical inquiry and artistic endeavor because Mondrian himself engaged in philosophical writing, Schufreider rejects the kind of approach that would look to paintings for mere illustrations of what has already been conceived in philosophy. If we were to follow this route, we would remain firmly entrenched within

the discursive dimension of aesthetics and therefore would not actually be straying far from the disciplinary enclosure of academic philosophy. However, Schufreider's own reason for avoiding this approach is that he sees in Mondrian's painting the possibility of a genuinely non-discursive thinking that is initiated in and through the work itself, and *not* by a prior theoretical discourse. He thus emphasizes the necessity of "exploring that other space of thinking which is his painting" (Schufreider 1997).

Although it may not be explicitly related to Schufreider's own interest in Mondrian, the latter nonetheless suggests a fruitful direction for interdisciplinarity insofar as the kind of integrated unity proposed in the model is one in which each element becomes more than what it was prior to or independently of its integration with others within the limit conditions of the field. This is the strength of Schufreider's later analysis of Mondrian for our purposes here. Whereas the earlier analysis might merely see in Mondrian's work an exemplification of the kind of unification discursively articulated in the Heideggerian text, thereby leaving both philosophy and artwork relatively unaltered in a meta-level analysis that demonstrates their mutual consistency, the later analysis begins to conceive of a unique kind of space and a unique kind of unification brought about by the painting itself, a space and unification that perhaps would not have come to philosophical awareness at all without the artwork. In this way we might say that what is brought about implicitly through the work is thematized explicitly in philosophy, and thereby the two, philosophy and artwork, mutually engage in an integrated unity through which they each become more than what they were independently of that integration. Schufreider even argues that Mondrian's work provides a possible resolution to a long-standing philosophical problem:

The point is that Mondrian ultimately found another way to resolve the traditional dualism between the individuality of the part and the universality of the whole, neither by abandoning hierarchy in a mere coordination of elements nor by submitting to hierarchical stabilization through the permanent dominance of some single element, but by working with the phenomenological appearance of the components of a visual composition to create a dynamic relation of interdependence between them. (Schufreider 1997)

Such a “mere coordination of elements” would indeed be the case if a Mondrian painting were compositionally unified by an underlying grid whose homogeneity of spatial extension coordinated the plotting of elements within its uniform space. On the other hand, a “hierarchical stabilization through the permanent dominance of some single element” could be achieved if there were a central focus to the work. But what Mondrian’s work actually achieves, according to Schufreider, is something quite different from these traditional, not to say metaphysical, solutions:

His neoplastic order requires the achievement of a constantly shifting equilibrium between the elements of a composition, a kind of reciprocating hierarchy of mutual subordination that allows each compositional component to emerge in its own complex identity as it is codetermined within a whole that is itself constituted in the interplay between those elements that are codefined within it. (Schufreider 1997)

Let’s make explicit some crucial characteristics of the kind of unification here attributed to Mondrian’s work. The unity is not static, but rather is dynamic in character. This means that there is neither a centre nor even a hegemonic element that can get stabilized within it. This might be taken to be a non-hierarchical egalitarianism of elements in which none are elevated over the others—a kind of bland uniform equality, itself its own kind of homogenization, or as one critic, Rudolf Arnheim, puts it, “a swarm of anonymous equals populating the picture plane” (quoted in Schufreider 1997). However, according to Schufreider, this is not the case. Rather than such egalitarian uniformity, the dynamism operative in the work produces a “reciprocating hierarchy” in which each element rises to the top when it is the focus of attention. Attending to each element in turn brings about this result, the overall effect of which is to prevent hierarchy from stabilizing. Thus rather than non-hierarchy being imposed from the outside or by some kind of external reflection, it is immanently produced within the dynamic interplay of reciprocating hierarchy itself.

A similar concept of unification through reciprocal hierarchy is elaborated in an unlikely place, namely, in one of the science fiction novels of C. S. Lewis, whose protagonist’s vision of the “Great Dance” of creation could well be taken as a description of Mondrian’s work:

In the plan of the Great Dance plans without number interlock, and each movement becomes in its season the breaking into flower of the whole design to which all else had been directed. Thus each is equally at the centre and none are there by being equals, but some by giving place and some by receiving it. . . . He thought he saw the Great Dance. It seemed to be woven out of the intertwining undulation of many cords or bands of light, leaping over and under one another and mutually embraced in arabesques and flower-like subtleties. Each figure as he looked at it became the master-figure or focus of the whole spectacle, by means of which his eye disentangled all else and brought it into unity—only to be itself entangled when he looked to what he had taken for mere marginal decorations and found that there also the same hegemony was claimed, and the claim made good, yet the former pattern not thereby dispossessed but finding in its new subordination a significance greater than that which it had abdicated. (Lewis 2005, 276–78)

The claim that Mondrian's unification is non-hierarchical and non-hegemonic, then, has to be qualified. It is both hierarchical and hegemonic, but, insofar as the unification is dynamic rather than static, any such hierarchy or hegemony is temporary and subject to immediate displacement as soon as another element is attended to. Thus, beyond merely serving as an example of integration, Mondrian's work, when its possibilities are made explicit through philosophical reflection, itself suggests (along with Lewis's vision of the "Great Dance") a further development of our model of integration. Namely, rather than merely abandoning hegemony or hierarchy in the kind of uniform equality that Nietzsche found repugnant (and which makes him into an enemy of democracy for some), it allows us to recognize a real hegemony within every discipline insofar as, from the perspective of any given discipline, it will tend to appear as "the master-figure or focus of the whole spectacle." But at the same time, when one looks at what one "had taken for mere marginal decorations" one finds "that there also the same hegemony" is claimed—and *the claim made good*. Every discipline tends to regard itself as hegemon—the kinds of questions it raises and the kinds of inquiries it fosters are seen to be the most important. Why else would any of us enter a particular discipline in the first place?

But it's not a matter of countering this claim by asserting that the kinds of questions it raises and the kinds of inquiries it fosters are *not* the most important, or that they need to be "contextualized" and thereby deflated. Rather than attempting to eliminate this desire for hegemony—which itself would be a questionable assertion of hegemony on the part of the advocate of interdisciplinarity—that desire is granted free space in the mutual interplay of elements within the integrated unity that itself is nothing outside that interplay. Each element in turn asserts hegemony and a reciprocal hegemony unifies the whole. Such unity, then, is neither imposed externally nor asserted as ground (as in an underlying grid), but rather is produced in and through the dynamic interrelations of the elements themselves.

This underlines the necessity of *polemos*—struggle, dynamic tension: a quiescent neutrality cannot be assumed. As Schufreider (1997) puts it, "only in mutually defeating the dominance of one another can the parts appear, and in differing ways, in relation to a whole that is itself shown to be composed, not in accord with a preestablished order but in the complex of relationships that are on-going between the elements themselves." Any such imposition of an overarching umbrella under which all disciplines are knocked down to the same level is itself a form of concealed hegemony, and would merely institute the "melting pot" model of unity criticized above.

Not only does Schufreider's account of Mondrian serve well as an instance of the kind of integration proposed in our model, but it also suggests the more determinate structure of *reciprocal hierarchy* as an improvement in the model itself. From the concrete example of such a unification having been achieved, we can derive a vision that might in turn serve as a set of limit conditions within which interdisciplinarity could be accomplished in ever more integrated ways. However, it might behoove us to recall the caveat mentioned earlier, namely, that different disciplines may call for different kinds of integration. Thus the integration of philosophy with empirical science may look rather different from that of philosophy with the fine arts. And insofar as my focus here is limited to philosophy we have only scratched the surface. Nonetheless, given the fact that we cannot specify in advance the wealth of empirical contingencies that will no doubt be encountered, the model proposed here, a model

which we may now tentatively designate as an *integrated interdisciplinarity through reciprocal hierarchy*, may prove both disclosive and useful as a set of self-imposed limit conditions within which interdisciplinarity might fruitfully thrive, and which itself requires the “inner readiness for mutual participation” Heidegger called for.

NOTES

- 1 The first three translations are from Freeman 1971, 25 and 28. The fourth is from Kirk and Raven 1957, 191.
- 2 For an argument defending a similar interpretation of Heideggerian thought and a more extensive explication of it, see Schufreider 1986.
- 3 The shapes of identity and unity presented here are generalizations presented in a meta-level analysis drawn from Hegel’s treatment of categories in the greater *Science of Logic*. My intent is to articulate these shapes in general terms and roughly indicate some features of a logic implicit within them that suggests a development from one to another above and beyond the static juxtaposition of given conceptions. However, a detailed treatment of the ontological account from which they are drawn is not only outside the scope of this essay but would also entail a considerable succession of transitions and categories not directly relevant to this inquiry.
- 4 See Slavoj Žižek’s account of this kind of universality, as well as his own attempt to articulate a concrete universal, in Žižek 1999, 100–103 and passim. For my response to Žižek, see Kisner 2008.
- 5 This formulation is a paraphrase of James Rachel’s attempt to interpret Rand’s “confusing doctrine.” See Rachel 2004, 337–38.
- 6 See Milton Friedman’s (in)famous article, “The Social Responsibility of Business Is to Increase Its Profits” (1970). It was Friedman’s valorization of fiduciary duty, with its concomitant indifference, that led to the notion of “stakeholders” above and beyond mere shareholders.
- 7 In Hegel’s treatment, this development cannot come about through a relation of universality to particularity alone but requires the mediation of “singularity,” or the individual. This individual character, however, is far from the atomistic Hobbesian/Lockean conception of individuality, often criticized as belonging to the model of the white male property owner, insofar as it is in turn only established through relation to the universal, on the one hand, and the other particulars, on the other. Hence it is an individuality—a singular identity—that is achieved through relations rather than in spite of or against them.
- 8 There are other possible examples not discussed but which may be developed along lines similar to those engaged here—for instance, the integration of philosophy and

- psychoanalysis, along with other disciplines not directly represented by the theorists themselves, in the collaborative work of Gilles Deleuze and Felix Guattari (e.g., Deleuze and Guattari 1987).
- 9 See, for instance, Heidegger 1996. See also “. . . Poetically Man Dwells . . .,” in Heidegger 1971, 211–29.
- 10 Chronologically ordered images of Mondrian’s work can be viewed in “Olga’s Gallery” at <http://www.abcgallery.com/M/mondrian/mondrian.html>.

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4

Globalization and Higher Education *Working Toward Cognitive Justice*

DIANA BRYDON

“There is no global social justice without global cognitive justice.”

Boaventura de Sousa Santos, Joao Arriscado Nunes, and Maria Paula Meneses, “Opening Up the Canon of Knowledge and Recognition of Difference” (2007), ix

This essay works within the context of three major challenges facing higher education today.¹ I phrase them as questions:

1. How can educators in the global north and global south devise better ways of sharing our knowledge and our sense of the obstacles that stand in the way of solving global problems?
2. How can humanists and social scientists communicate across our divisions and learn to benefit from the strengths of our differently focused research?
3. How can those of us situated within universities learn to share our research and teaching functions with the increasing number of private and public civil society organizations that also claim knowledge production and research rights?

In asking these questions, this essay intervenes in current knowledge politics debates to advocate goal-oriented forms of interdisciplinarity structured around contextualized problem solving within ethically self-conscious frameworks.² My argument here is that interdisciplinarity, internationalization, globalization, and cognitive justice need to be thought of—and addressed—together. Exactly *how* these will be addressed is one of the major issues facing higher education today. This volume presents a range of approaches to what Ian Angus, in his essay, calls “the ‘what’ and ‘for whom’ of knowledge.” I come to these questions from the contentious interdiscipline of postcolonial studies as it seeks to ask what David Slater terms “postcolonial questions for global times” (1998).³ In seeking to negotiate between what Santos, Nunes, and Meneses term “*knowledge-as-regulation*” and “*knowledge-as-emancipation*” (2007, li; emphasis in the original),⁴ I begin with the premise that universities are not well designed to address global problems or respond to the changing conditions brought about by globalization. As Fred Riggs argues in his “Global Studies Manifesto,” “Far-reaching transformations in the contemporary world system make a new paradigm for academic teaching and research necessary, but deeply entrenched traditional ways of thinking block the needed changes” (2004, 344). At this high level of generality, such an argument for transformation may be used to remodel the university according to market values or to critique those models from a position that queries both market values *and* traditional defences of the liberal university. This essay aligns itself with the latter approach. Universities need a new form of globally involved interdisciplinarity advocating for the university as a forum where values may be debated and where previously excluded modes of knowing may enter the discussions. In that respect, this essay aligns itself with arguments made by Ian Angus, Lorraine Code, Len Findlay, Harvey Graff, and Morny Joy in other essays in this volume.

Sandra Harding puts the case for such a position in language that vividly suggests the limitations of current forms of knowledge production across the disciplines. “Western sciences and politics, and their philosophies,” she argues, “need an exorcism if they are to contribute at all to social progress for the vast majority of the globe’s citizens!” (2008, 3).⁵ Lorraine Code’s essay in this volume explores more fully what such an

interrogation into the politics of science might mean. My focus here falls more centrally on the implications of such an argument for work within and across the humanities and social sciences. While Harding's social progress argument may superficially appear to share instrumentalist assumptions with those who argue for increased marketization of knowledge and technological transfer, the first position operates according to an unquestioned market logic while the second asserts an alternative value system, which respects human creativity, including its capacity to question and transform its thinking on an ongoing basis. In its commitment to what Bonnie Honig terms an "agonistic cosmopolitics" (2006, 117) such an approach is more affirmatively complex, open-ended and ultimately unpredictable than that adopted by market logic.

In *Globalization of Education*, Joel Spring links postcolonial approaches to the globalization of education with world system theories, contrasting what he sees as this combined approach to that provided by world education culture on the one hand and culturalist approaches on the other (2009, 17). This essay challenges his classificatory system by presenting a more nuanced approach to cultural and political questions of knowledge production in global contexts, drawing on insights from Indigenous research, globalization theory, and postcolonial cultural work in dialogue with the kind of work within interdisciplinary studies discussed by Julie Thompson Klein and within cross-disciplinary literacy studies discussed by Harvey Graff, elsewhere in this volume.

Beyond these debates within the academic community, there is often also a lack of fit between what many students and employers think a university education should provide and what university professors tend to think our role should be. These issues are coming to a head around the "competency provisions" that the European Bologna Process is designed to deliver.⁶ Universities today no longer hold a monopoly on knowledge production, the training of citizens, the provision of skills for the contemporary workplace, or the certification of professionals. Challenges to university authority and legitimacy come from many quarters. Furthermore, higher education institutions are undergoing reforms that may be shifting balances of power in ways that potentially offer space for the development of alternative educational alliances.⁷

My interest lies primarily in the implications of such shifts for research questions of design, process, adjudication, and dissemination as they feed into curricular and pedagogical reform, and as they are challenged by decolonization and feminism. These need to be worked through in relation to questions of education for global citizenship, global governance, and the renewal of democratic practices at local, national, and global levels. Calls for market-oriented reforms are drowning out calls from feminist and postcolonial perspectives and in many cases encouraging a retrenchment of established positions instead of serious rethinking for cognitive justice. I see no necessary contradiction between education for the workplace, if broadly conceived, and education for societal participation. Similar skill sets, breadth of knowledge, and aptitude for innovation will be required for both. Each requires nourishment of the capacity to learn and to unlearn and to grow through experience. At the same time, it is important to resist a narrowing of educational functions to meet either restricted notions of workplace needs or new enthusiasms for the internet as an alternative to current educational systems.

The ongoing global crisis within the financial system is pushing North American universities toward what Lloyd Armstrong (2008)—one of the bloggers whose work I follow—suggests may be a tipping point in the globalization of higher education. That tipping point represents new dangers and opportunities in two related areas: the institutional and the epistemological/philosophical. Whereas Lorraine Code addresses these challenges in relation to science and ecology elsewhere in this volume, my approach focuses more centrally on the challenges posed to public university systems and humanities and social science research.

First, universities will need to adjust to these economic changes, which include challenges to the hegemony of northern universities from universities located within the global south and challenges to universities outside the European Union from a reformed European system. Many of the assumptions built into current institutional structures and practices are now being questioned from different angles. Second, challenges to the very assumptions about what constitutes knowledge, how it may best be generated, assessed, conveyed, and utilized, and how it contributes to contested ideas of the true and the good are emerging in more urgent forms as the global system reorients itself away from the imperial

legacies of the past. It is in this sense that I am employing the shorthand term “cognitive justice,” coined by Boaventura de Sousa Santos (2007b) to refer to what he describes, in the subtitle of his book *Cognitive Justice in a Global World*, as “prudent knowledges for a decent life.” In this essay, I use “cognitive justice” to refer to the goals of reciprocal knowledge production based on dialogues across differences and attempts to compensate for power differentials in the interests of promoting social justice. Part of achieving cognitive justice will involve understanding and challenging the ways in which different kinds of “epistemologies of ignorance” (Alcoff 2007; Sullivan and Tuana 2007) are built into and produced by current modes of knowing. In postcolonial theory, Gayatri Chakravorty Spivak has spoken of various kinds of “sanctioned ignorance” (1999, 279), by which she means ignorance that is actually socially encouraged, as calling for a process she had earlier described as “unlearning our privilege as our loss” (1990, 9).

The pre-eminence of universities in the global north is being challenged by other knowledge producers in the north and global south, ranging from the rise of public and private universities to local, regional, and global networks of Indigenous and social activist groups. As a result, conventional disciplinary categories of knowledge preserves, constructed around imperial knowledge formations and the territory of the nation-state, are now being challenged by potent combinations of demands for interdisciplinarity and internationalization.

In this emerging situation, interdisciplinarity and internationalization mean different things to different people. I come to interdisciplinarity through trial and error. By interdisciplinarity, I mean the developing practices emerging out of dialogue between people working within and out of different disciplinary structures on topics of mutual interest, such as the complex connectivity involved in understanding globalization and autonomy, the focus of my own collaborative research over the past eight years. Now I am working within a new team project, “Building Global Democracy.” This project is linking academic, civil society, and policy communities, in a multi-faceted exercise built around a set of sub-projects, each of which demands interdisciplinary, international attention.⁸ Out of such dialogue, newly appropriate ways of making meaning might

emerge, with a potential for understanding and addressing some of the problems the globe, as an emergent community, now faces.

For the purposes of this essay, I am using globalization to refer largely to the spread, growth, and speed of transplanetary social connections, which are leading to changes in transworld interconnectivity that cannot be limited to neo-liberalism alone. With globalization, there is a growing awareness that many of the most pressing issues facing the world today now require concerted attention at a transnational level. If a full understanding of these issues is to be achieved, interdisciplinary attention must be brought to bear upon them. Yet those interdisciplinary approaches are difficult to develop and even harder to institutionalize within a university system where disciplinary brands still carry the most weight. Internationalization is different from globalization, since it still relies on interstate relations that many aspects of globalization challenge. By arguing for internationalization in the contexts of university reform, I mean something different from those who argue for this process on the basis of commercial opportunities alone. Instead, I refer to the dialogue that postcolonial scholars insist must be begun on more equitable terms between different parts of the world and the cultural logics they have developed to address their changing circumstances.⁹

Jan Aart Scholte notes, “Most accounts of globalization have been silent on its consequences for knowledge frameworks” (2005, 27). Postcolonial theory marks an exception to this conclusion that merits closer attention, not only because it will be important for achieving cognitive justice but also because it enables scholars to get a better grasp on what is happening in the world today. Postcolonial work has always focused on what Anna Lowenhaupt Tsing calls those “zones of awkward engagement, where words mean something different across a divide even as people agree to speak” (2005, xi). Like Tsing, postcolonial theorists recognize that these zones are complexly located and shift over time, requiring the negotiation of alternative meaning-making systems to achieve a fuller sense of the options before us.

I stress the “zones of awkward engagement” and the dialogue between different and evolving cultural logics as an alternative to two dimensions of culturalism, which currently distort attempts to communicate across systems of cultural difference. Christoph Brumann provides a preliminary

definition of culturalism as denoting a form of “cultural fundamentalism . . . [which] posits the existence of a finite number of distinct cultural heritages in the world, each tied to a specific place of origin” (2005, 68). Such a notion fails to take sufficient account of the multiple ways in which cultural systems are situated and continually renegotiating their understandings. Two problematic derivatives of culturalist ways of thinking may be observed, first of all, in the clash of civilizations thesis, advocated by Samuel Huntington and ably critiqued by Edward Said and others, and, second, in the current tendency to force scholars born in the global south and educated within Western scholarly traditions to perform as native informants within a Western logic of identity politics, which is overdetermined in many cases by US experiences of racism and multiculturalism and habits of culturalist thinking derived from imperial systems of representation.

The blockages to cross-cultural dialogue thrown up by culturalist thinking and practices are too major a topic to address in this essay.¹⁰ For now, my point is a simpler one. In attempting to create more equitable exchanges between the global south and the global north, notions of absolute and incommensurable difference, which tend by implication to deny full humanity and autonomy to Western others are not helpful. Neither is it sufficient to assume that any scholar, simply by virtue of birth and workplace location within an area of the global south, will necessarily be committed to bringing subaltern and subjugated forms of knowledge into dialogue with the status quo. The opposite also holds. Much criticism has been directed at expatriate postcolonial theorists working within the global north, as if their very expatriation makes them inauthentic comprador intellectuals automatically performing as complicit native informants. Attention must be paid, then, less to the identity or physical location of these intellectuals and more to the substance of the analysis they offer and its relevance to the context they address.

These are issues research teams I am involved in are confronting in concrete ways as we attempt to reconceptualize democracy and re-establish more equitable forms of exchange with our colleagues in different parts of the global south. In setting up the steering committee for the “Building Global Democracy” project, Jan Aart Scholte was careful to establish gender parity within a context of ensuring that a variety of

ideological orientations and geopolitical locations be represented, with the weighting skewed toward locations in the global south. The principle of gender parity works efficiently to counter the token woman problem. Efforts are also being made to reduce the dominance of English, by ensuring that translation is available for those more comfortable working in a different language. Another team project, "Collaborative Globalization Research Across Cultures and Disciplines," has held two workshops led by W. D. Coleman, focusing on emerging issues in regionalization and multiple literacies or meaning-making systems while seeking to bridge the digital divide through turning to the promise of new technologies.¹¹

I come to these projects as an English professor specializing in post-colonial cultural studies who has been morphing into a particular type of globalization studies scholar concerned with the conditions necessary for renegotiating community and building local and global democracy. As an educator, I am especially interested in determining what kinds of pedagogies and curricula are needed to educate citizens about globalization, citizenship, and culture and am increasingly convinced of the value, indeed necessity, of international partnerships to achieve these goals. I am finding my greatest inspiration in working with colleagues (teachers and students) based in Brazil, each of whom is grappling with the expanded range of literacies that globalizing processes are requiring.¹² As part of that process, we are reframing our understanding of the potential of the Americas as a region within the evolving global system.¹³

As a Canadian, I am concerned that Canada suffers from the lack of a national educational policy. Canada is in danger of falling behind in an increasingly competitive and rapidly changing field. Canadians need to work more efficiently across provincial boundaries within the Canadian nation-state while also forming more robust partnerships with colleagues globally if we are to continue to create research and learning opportunities for thinking and working in our changing times. The Bologna Process, as it is developing in Europe, and shifting priorities around the globe represent a major challenge as well as opportunity.¹⁴ The Association of Universities and Colleges of Canada (AUCC) has taken steps to address the Bologna Process and its implications for Canada's universities, but primarily within the context of seeking means to enhance Canada-Europe co-operation.¹⁵ I am arguing here that the

Bologna Process carries larger global implications, which require attention to Canada's place within the global system. There is also a danger that the mobility, exchange, transparency, and quality controls that this process could enable will come at the expense of diversity and flexibility in program offerings, pedagogical innovation, and research design, conduct, and evaluation. This is a real fear.

Still, the kinds of global integration that may come with internationalization need not involve the choices usually posed by anti-globalization activists: either relativist celebrations of multiplicity or imposed cultural homogenization and rigid standardization on Western terms.¹⁶ Indeed, thinking in terms of these kinds of dichotomies is part of the problem in the way globalization debates are currently conducted. Possibly, with creative design, the integration of governance arrangements can be arranged to enable greater appreciation of local divergences and cross-cultural understanding. Support for diversity is in theory at the heart of the Bologna Process. Bilingualism and multilingualism, increased translation across different linguistic spheres, and increased attention to critical, multimodal, and global literacies should all be encouraged in order to enable the responsible exercise of local, national, regional, and global or "planetary" (Spivak 2003, 97) forms of citizenship. Extended and layered forms of citizenship can strengthen democracy across the nested scales of engagement that are beginning to characterize our world.

Such renewed forms of citizenship require highly developed critical thinking skills. Faculty often agree that critical thinking is the main goal of university instruction, but there is as yet little recognition that such thinking is best learned through experiencing interdisciplinary approaches to a problem that is shared across many different fields of expertise and experience. Research on globalization and globalized research, that is, research conducted through internationally based teams, can help us appreciate the potential of evolving approaches.

Part of that interdisciplinarity will need to involve participation from the full range of global knowledge producers, neither limiting itself to the ethnocentrism of Western approaches alone nor relying on forms of interculturalism that exoticize Western others.¹⁷ Such an expanded involvement cannot be approached in an ad hoc or additive fashion, however. The old coverage model cannot simply be expanded to take in new

forms of thinking. Instead, the ideal of coverage needs to be abandoned in favour of reorienting knowledge production toward modes of thinking and imagining that can recontextualize problems across a range of scales, within contexts geared toward recognizing the changing demands of lifelong learning. This argument is importantly made by Arturo Escobar (2007), who explains that the knowledge produced by what he terms the “meshworks” of anti-globalization social movements (AGSMS) “should be an important part of academics’ own theorizing and research agendas. It is no longer the case that some produce knowledge (academics, intellectuals) that others apply (social movements).” Such boundaries “are completely disrupted at present, as movements become knowledge producers and intellectuals are called upon to engage more and more in activism” (2007, 282–83).

There are at least two cautions I would add to Escobar’s argument. First, in questioning the theory/practice divide between theorists and activists, it is also necessary to question the implied divide structuring modernity, which separates the global north as knowledge producer from the global south as knowledge user.¹⁸ Escobar’s argument emerges from utopian beliefs that another, better world is possible. However, its articulation relies on privileging pragmatism over scholarship (as he notes), with all this implies, including a tendency toward anti-intellectualism with a potential bias toward thinking in terms of the moment. Therefore, my second caution is this: Attempts of these AGSMS to open the hierarchical knowledge systems developed in the (Western) university to inputs from below can easily be partnered with those disturbing developments that Martin Jay has analyzed so well in “Educating the Educators.” The “unsettling mix of inchoate forces that emerged ‘from below,’” as Jay describes them, “include everything from computer hackers to body piercers, postmodern performers to underground ‘zine’ cartoonists, skater dudes to cyberpunk bands, gangsta rappers to queer activists” and may be extended to include “kooks who think Darwin is the Anti-Christ” (1998, 107–8). All derive their newfound legitimacy through participating in what Jay cites Peter Sloterdijk as calling “‘cynical reason,’ which Sloterdijk defines as ‘enlightened false consciousness’” (1998, 107). How to distinguish among these varieties of critique to achieve new forms of knowledge production that might advance “cognitive justice in a global

world” (Santos 2007b) is the challenge before us. It would be wrong to throw the baby of postcolonial and subaltern critiques out with the bathwater of cynical reason. But any reformer must “proceed with caution” (as Doris Sommer [1999] reminds us).

This essay finds its sense of direction from the range of inspiring work emerging from within the dialogues developing across various knowledge networks within the social, political, and cognitive justice movements. While many universities have added the fostering of global citizenship to their vision statements, insufficient attention has been given to how this goal might best be achieved. The lack of curiosity about and respect for the wisdom of other cultures within North America can be discouraging, but our growing awareness of the interdependence of our world, environmentally, economically, and politically, can be recruited to encourage a new openness to difference, a receptivity to change, and a willingness to experiment with internationally based forms of interdisciplinarity. To turn such openness into action, university rewards systems will need to be changed and current institutional structures loosened.

To make this argument, this essay raises some of the questions that necessarily precede curricular reform, pedagogical innovation, and revised and enlarged definitions of research, if educators are to move closer to enacting “cognitive justice,” de Sousa’s term for equitable ventures in knowledge production. We university educators now share the world of advanced knowledge production with many rivals, not just private providers and think tanks, government and non-government agencies, but also business and civil society groups who no longer necessarily accept our authority. I don’t think that universities will disappear, but I do expect that they will change, and possibly quite rapidly, over the next few years. How will those of us in universities direct that change so as to promote “cognitive justice”?

I approach this question as a feminist and postcolonial scholar who is only too well aware of the inequities defended in the name of tradition and social cohesion. My work responds to that of the many scholars who are rethinking assumed dichotomies between tradition and innovation, individual and community, to stretch our imaginations (Code 1998) toward alternative modes of sociality and continuity, modes better suited to recognizing the ways in which preservation of a culture’s governing

logic may well depend on continual renewal rather than freezing certain practices in time.¹⁹ To “preserve” what is best about universities, then, we need to redesign an institution built for the needs of one historical moment to better meet the needs of very different times.²⁰

Concepts linked to “cognitive justice” that lie behind the arguments of this essay include ideas about the operations of the “instituted and instituting imagination” developed by Cornelius Castoriadis (1991); valorizations of the “grassroots imagination” and “the right to research” developed by Arjun Appadurai (2000, 2006); the principled insistence on challenging what Spivak calls the “sanctioned ignorance” (1999, 279) that operates within established forms of knowledge by developing “transnational literacy” (1996, 295) and cross-disciplinary “interruptions” (2003) as theorized by Spivak; and the continuing need to “decolonize the imagination,” as argued by thinkers from Fanon to Ngugi to successive generations of Indigenous thinkers such as Linda Tuhiwai Smith (1999), Marie Battiste and James (Sákéj) Youngblood Henderson (2000), and Aileen Moreton-Robinson (2004, 2007), as well as in the collectively authored *Reasoning Together* (Acoose et al., 2008).²¹ Len Findlay’s call to “Always Indigenize!” (2000) is part of this movement, as is Dipesh Chakrabarty’s to “provincialize Europe” (2001), along with the now extensive efforts of Walter Dignolo and Arturo Escobar to theorize a “decolonial option” to globalization, presented in their anthology *Globalization and the Decolonial Option* (2010). In thinking through the complex connectivities and disjunctions running through these trajectories, each with its own differently situated starting points and vectors of analysis, it will be helpful to learn from Tsing’s nuanced investigations into the enabling and blocking dimensions of global “friction.”

This essay accepts as background to its position Immanuel Wallerstein’s (2007) argument that the modern “divorce” between philosophy and science separated the search for what was true from the search for what was good, leading to many further problems. Several essays in this volume address this history and its legacy in more detail than I can venture here. Briefly, as Wallerstein explains it, “however hard scholars worked to establish a strict segregation of the two activities it ran against the psychological grain.” As a result, attempts “to reunify the two searches returned clandestinely, in the work of both scientists and philosophers,

even while they were busy denying its desirability, or even possibility.” But because this reunification happened secretly, “it impaired our collective ability to appraise it, to criticize it, and to improve it” (2007, 130). These are some of the difficulties that led Bruno Latour to conclude, in the title of one of his books, that “we have never been modern” (1993). While these contradictions, which Latour argued comprised a “hidden constitution,” have haunted modernity since its genesis, they have emerged with a new urgency now.

At the most general level, then, there is a growing sense that knowledge producers need to rethink how they approach the big questions of how we know what is true and what is good and how we can think these questions together—if we can. The implications for universities are twofold: first, the re-emergence of these questions throws the university’s previous monopoly of knowledge production into question; and, second, these questions require a re-examination of how research is organized, evaluated, communicated, and implemented, both within the university and beyond.

The goal of “cognitive justice” challenges the hierarchy of knowledges that has come to characterize our current system, and it recognizes that many of the challenges confronting the world now are too complex for any single person or discipline to comprehend. Universities have been struggling with the challenge of interdisciplinarity since at least the 1970s. This essay argues that the rise of globalizing pressures is now reaching a tipping point where institutional and intellectual pressures are converging in a quest for genuine change. Older notions of academic community are breaking down; how might they be reconstituted in more equitable and effective forms? Community always needs to be negotiated, but right now it needs to be fundamentally rethought.²² How might disciplinary loyalties be opened to alternative modes of thinking and meaning making? How might we learn to think, with Appadurai, of the “right to research” as a right that belongs to everyone? How follow Santos’s lead in asking what “cognitive justice” requires in a global world?

In moving from postcolonial to globalization studies, I have been struck by the prominence of what James Scott terms, in the title of an influential book, “seeing like a state” (1998) in political, international, and globalization studies.²³ Humanist studies can interrupt those assumptions, as Julie

Cruikshank does, by asking surprising questions that shift the frames of reference, such as “Do glaciers listen?”—the question she uses to title her 2005 book. Fictive imaginings can reaffirm Giorgio Agamben’s challenge to imagine a “nonstatist politics” that derives from a form of thought that “has as its object the potential character of life and of human intelligence” (2000, 8–9). Agamben argues that “it is necessary that the nation-states find the courage to question the very principle of the inscription of nativity as well as the trinity of state-nation-territory that is founded on that principle” (2000, 24). In other words, while the nation and the state can be thought of as self-reinforcing structures, they can also be employed to productively interrupt one another.

Despite their differences, the humanities and the social sciences have to a large extent built themselves around Agamben’s trinity of nation-state-territory, which has authorized two assumptions whose givenness is now being brought into question. First, there is the primacy of the nation-state as a unit of analysis, leading to what Ulrich Beck calls “methodological nationalism” (2006, 24–27). This naming prompts the question as to what methodological alternatives might prove superior for understanding globalization today. Several critics, for example, have suggested models of “planetary” (Gilroy 2005; Spivak 2003), cosmopolitanism (Appiah 2006; Beck 2006; Benhabib 2006; Cheah 2006) or critical humanism (Said 2004). Others advocate new forms of regionalism, polycentrism, or multiculturalism. Second, there is the stubborn persistence of culturalism or the “culturalization of politics” (Brown 2006, 19–24, 151, 167). Culturalism, as noted earlier, is a habit of thought assuming that the West and its habits of knowing exist outside and beyond culture, in opposition to its civilizational or barbarous others, who remain in thrall to their communal cultures. While a large body of work now exists to contest these assumptions, they remain influential within both disciplinary and common-sense knowledge formations today, helping account for what Catherine Dauvergne, in *Making People Illegal*, terms “fact resistance” (2008, 99–100). When confronted with counter-intuitive information that challenges their preconceptions, she argues, policy makers often resist the facts as academics present them.²⁴ At the same time, facts themselves, as representational constructs arising from certain moments in history and reflecting its emergent and now dominant ideological assumptions,

are coming under increasing examination as the fact itself is historicized and therefore problematized as one way of knowing among others. In other words, while the fact may once have enjoyed a certain status as above and beyond interpretation, it is now being reconceived as itself an interpretive construct (Poovey 1998). Recourse to facts and a discourse of fact denial, therefore, cannot serve to resolve disputes in favour of unquestioned reason but only to shift the terrain to another field of interpretative engagement. This renewed reflexivity of rationalism cannot be wished away by attacking postmodernism. Rather, it is another sign of the emergent discursive formations encouraged by globalization.

Much has been written on the limitations of methodological nationalism and culturalism, and the need for newly imagined forms of interdisciplinarity. Yet the summary conclusions put forward in *Globalization: A Critical Introduction*, Jan Aart Scholte's influential introduction to the topic, suggest that the impact of globalizing processes on the production of knowledge have not yet substantially changed the status quo. He notes that "global (as distinct from international) data continue to be in short supply. Most statistics are still calculated in relation to state-country units." Furthermore, "interdisciplinarity generally remains more aspiration than actuality in globalization studies" and "the widely recognized need for more intercultural approaches to the subject has gone largely unanswered. Most writings remain heavily west-centric—and many are more narrowly Anglo-centric or US-centric to boot" (xiv). Given this situation, more sustained cross-cultural, south-south, and south-north engagements with interdisciplinary globalization studies seems called for. Scholte's chapter "Globalization and Knowledge: From Rationalism to Reflexivity" argues three main points:

1. "Contemporary globalization has not substantially weakened the hold of rationalism on the social construction of knowledge, although some rationality has become more reflexive";
2. "The rise of transplanetary connectivity has encouraged some growth in anti-rationalist knowledges like religious revivalism, ecocentrism and postmodernism"; and

3. “The growth of transworld relations has promoted some shifts in ontology, methodology and aesthetics.” (2005, 256)

As generalizations, and within the terms of his survey, Scholte’s conclusions strike me as fair descriptions of the current scene; yet, from the perspectives I am employing in this essay, they are insufficient. Interestingly, Scholte does not mention epistemology in his summary, yet this essay argues that it is understandings of epistemology that are at stake. The problem lies with the assumptions behind the terms employed. Both sides of his dichotomy become invidious: a too-narrow, dogmatic adherence to reason (rationalism) versus a dogmatic resistance to it (anti-rationalism). Perhaps what is desirable is a rational, as opposed to rationalist, use of reason, which would necessarily (rationally) always be open to what demonstrates itself to be reasonable within an expanded understanding of reason’s scope. Such expanded understandings would likely need to find scope for understanding questions of affect and spirituality as in some of their manifestations within, rather than beyond, the domain of reason’s judgments.²⁵ Scholte’s summary, in its use of established Eurocentric binaries, misses the genuine excitement of alternative approaches to knowledge production emerging from marginalized and misunderstood locations, and the very real sense of urgency that many of us now feel about the need to engage these alternatives in much more substantive fashion, if cognitive justice is to be advanced.

NOTES

- 1 The thinking behind this essay derives from work undertaken between 2001 and 2008 on the SSHRC-funded Major Collaborative Research Initiative “Globalization and Autonomy,” under the leadership of political scientist William D. Coleman, which has led me to continuing work both with Coleman, on “Building South-North Dialogue on Globalization Research” (2007–9), and with Jan Aart Scholte and his team working on a project funded by the Ford Foundation, “Building Global Democracy” (2008–12). This essay was in part inspired by the work on cognitive justice presented by Coleman and Nancy Johnson at these workshops, and in revision has benefited from the paper by Coleman and Josephine Dionisio (2009) published in the special issue of *Globalizations* on the Globalization and Autonomy project. I am grateful to the conference organizers,

Raphael Foshay and Derek Briton, for the opportunity to share and develop this research with other participants in the SSHRC-funded workshop “The Scope of Interdisciplinarity” that they organized in the fall of 2008. My work with these projects, and the research for this paper, was also funded, in part, through the Canada Research Chairs program. I am grateful to doctoral student Sandy Annett for her invaluable research assistance.

- 2 For an argument about the different kinds of knowledge politics and the interdisciplinarity they require, see Jan C. Schmidt (2007).
- 3 The project Phillip Darby calls “postcolonizing the international” (2006), might more appropriately be thought of as decolonizing the international. Part of that process, as Couze Venn (2006) notes, involves challenging various forms of violence at the symbolic heart of colonialism: “epistemic violence, that is, the denial of the authority and validity of the knowledge of the colonized; ontological violence, namely, the refusal to recognize the (non-assimilated) colonized subject as a fellow human being; and symbolic and psychic violence, the silencing of the voice of the colonized, the denial of the latter’s ability to tell his or her story” (11).
- 4 See also Mario Novelli (2006) for an elaboration of this distinction.
- 5 The metaphor of exorcism, implying that Western forms of knowing, when mistakenly taken as universal, operate as a bad spell or spirit possession, is common to much postcolonial literature. In a similar vein, an article that describes itself as “written within the spirit of the Theory of the South,” describes its authors’ model of popular education as “an antidote to neo-liberalism” in educational policy and “a struggle for the soul of Latin America” (Jones and Torres 2010, 568).
- 6 See, for example, Eva Hartmann’s 2008 neo-Gramscian analysis of the implications of this process in “Bologna Goes Global.”
- 7 Hartman suggests two hypotheses, that these developments are leading toward the “continuity of the USA as imperial power” or that the EU is becoming a “new emerging power,” before suggesting that “the current weak position of both sides provides a good opportunity for critical scholars to develop broad alliances outside and inside academia in the North and the South to establish alternative alliances and ideas for another world going beyond the fatal shortcomings of capitalist societies” (2008, 217). I share this interest in pursuing the potential of new South-North alliances for challenging these older hegemonic systems.
- 8 For more information on this evolving project, see www.buildingglobaldemocracy.org.
- 9 Since I first delivered this paper, *Postcolonial Studies* has devoted a special issue to this topic. See Seth (2009).
- 10 Fuller treatments of this topic from a variety of perspectives may be found in Brown (2006), Kapur (2005), Razack (2008), and Nakata (2007), among others. I discuss their insights at greater length in “Competing Autonomy Claims and the Changing Grammar of Global Politics” (Brydon 2009). Culturalisms are also the topic of a special issue of *New Literature Review*, guest-edited by Diana Brydon, James Meffan and Mark Williams (2009).

- 11 Fuyuki Kurasawa's essay "Americanity and the Prospects of a Hemispheric Social Imaginary" (2008) illustrates the productive potential for thinking through these two foci together that is emerging with the advance of globalization.
- 12 I am grateful to the Canadian Bureau for International Education scholarships funded by the Canadian Department of Foreign and International Trade for enabling PHD students to travel from Brazil to work with me in Winnipeg on different dimensions of literacy education projects and to the Brazilian government for funding the travel of colleagues coming here for their sabbaticals in this area. I am especially grateful to Professor Lynn Mario T. Menezes de Souza and Professor Walkyria Monte Mor for their research collaboration and for encouraging their graduate students to participate in this program. Such redefined literacies include critical, creative, cultural, emotional, ethical, and multimodal forms of literacy. In 2011, we were granted funding from the Social Sciences and Humanities Research Council of Canada for a partnership development project, "Brazil/Canada Knowledge Exchange: Developing Transnational Literacies," which has enabled us to pursue this research.
- 13 I find parallels to my thinking on these matters in Kurasawa (2008).
- 14 The Bologna Process derives from the Bologna Declaration of June 1999, which put in motion a series of reforms designed to make European higher education more compatible and competitive, modernizing the system, encouraging mobility within it, and prioritizing the development of a three-cycle system (bachelor/masters/doctorate), quality assurance, and recognition of qualifications. The aim is to create a European Higher Education Area by 2010. I am grateful to Rhonda Friesen for first alerting me to this process and for continuing discussion of what is at stake in these changes.
- 15 See the AUCC Statement on Canadian Universities and the Bologna Process of June 2008 and the documents associated with the symposium, "The Bologna Process and Implications for Canada's Universities: The Changing Landscape for Canadian and European University Partnerships," held 26 and 27 January 2009 on the AUCC website.
- 16 See David Murphy's 2007 review essay, "Globalization, Knowledge, and the Limits of (Inter)disciplinarity" for a rehearsal of these options. In contrast, the emerging consensus in globalization studies seems to be that global integration and the renewal of local particularities are proceeding in tandem, in ways the coinage of the term "glocalization" seeks to capture. For an elaboration of research into questions of globalization, autonomy, and culture, see Rethmann, Szeman, and Coleman (2010).
- 17 See Rustom Bharucha's comments on the need for Indians to resist "the increasingly sophisticated appropriations of non-western resources through new technologies and treaties" (1999, 477) and his critiques of multiculturalism and interculturalism.
- 18 For an extension of this argument to the vexed relation between African-American women critics and migrant scholars of Indian origin, an argument that attributes a version of this problem to contemporary postcolonial theory as practised by Spivak and Bhabha, see Namita Goswami, who asks: "What form of colonial-postcolonial—neo-colonial symbiosis between the USA and the UK, reinforced and reified by postcolonial

USA-centric and UK-centric neo-imperialistic migrancy, allows canonical postcolonial scholarship's Eurocentric methodology to appropriate black women's writing while excluding their scholarship?" (2008, 83). While Goswami's posing of this argument does not avoid some problematic identity politics of its own, it does pose important questions about continuing hierarchies of valuation, assumptions about race and difference, and unconscious bias that plague even well-intentioned attempts to circumvent such systems. In thinking about the moment when postcolonial discourse entered the academy, she wonders why "an historical moment that could have created alliances caused segregation, competition, and exclusion" (2008, 85). To answer such a complex question is beyond her essay's capacities. Its implication that somehow the (mostly migrant, in her view) practitioners of postcolonial critique might be exclusively responsible for such failure seems simplistic. Nonetheless, questions about complicity and unintended consequences must always be asked of any efforts to shift knowledge production toward ideals of "cognitive justice."

- 19 See the volume I co-edited with William D. Coleman, *Renegotiating Community: Interdisciplinary Perspectives, Global Contexts* (2008). My thinking has been advanced on this topic by reading Lynn Mario T. Menezes de Souza and Vanessa Andreotti, "Reimagining Community," unpublished manuscript provided to the author.
- 20 See, for example, Bruno Latour's eco-critically oriented argument in "A Plea for Earthy Sciences": "While we may have had social sciences for modernizing and emancipating *humans*, we have not the faintest idea of what sort of social science is needed for *Earthlings*" (2007, 3).
- 21 This literature is too extensive to cite in full, but see DePasquale, Eigenbrod, and LaRocque (2010) and Blaser, de Costa, McGregor, and Coleman (2010) for two recent contributions.
- 22 See Brydon and Coleman (2008) for an elaboration of this argument.
- 23 See also James Tully's discussion of this problem and everything it overlooks and misrecognizes (2008, 265).
- 24 See Pinch (1999) for a similar argument.
- 25 I am grateful to Raphael Foshay for pushing me to think more carefully about these questions.

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5

The Law of Non-contradiction *Dialectic and the Possibility of Non-propositional Knowledge*

RAPHAEL FOSHAY

Disciplines have proliferated in the modern university as a natural and inevitable consequence of the inexorable extension—both macro- and microscopically, qualitatively and quantitatively—of the boundaries of knowledge: that is to say, as a consequence of the logic of inquiry and research themselves. What is this underlying logic of inquiry? Despite the unwieldy scope of such a question, it is curious to observe the ostensible unity that underwrites it, a unity provided by the central role of the Law of Non-contradiction (LNC) in the over twenty-five hundred years of its history. In his *Metaphysics*, Aristotle asserts the LNC to be so certain as to defy the need for rational defence. He nevertheless goes on to present a series of seven, at least according to some (Priest 2006a, 120), less-than-convincing arguments. The curious dogmatic reign of the LNC has overseen the period in which the university and the disciplines have arisen. And in addition, the relatively recent emergence of serious challenges to the LNC in the past century is likewise the era in which the spread and range of the disciplines has begun to be countered with a pervasive

interest in and concern for their interrelation, giving rise to competing models of inter-, multi-, and transdisciplinarity and the proliferation on all campuses of interdisciplinary programs and research institutes. Such an obvious large-scale similarity of historical pattern between the logic of inquiry and the structure of disciplines seems too obvious or too vague to be of significance, and yet I will explore in this essay some of the roots of this pattern in the intellectual tradition and the reasons why I think it worthy of closer investigation and deeper reflection.

I

For Aristotle, the first principle of all inquiry is what came to be called the Law of Non-contradiction—that most simple of propositions to the effect that no contradiction can be true (Beall 2004, 2–3). As an incontrovertible principle, the LNC extends in its scope from the genus philosophy, with its primary study of being qua being, through the species of the sciences, with their focus on specific beings and aspects of being. The LNC is, as Aristotle (1984) claims in Book Γ of the *Metaphysics*, “the most certain principle of all . . . that regarding which it is impossible to be mistaken.” He continues:

Such a principle must be both the best known . . . and non-hypothetical. For a principle which everyone must have who knows anything about being, is not a hypothesis; and that which everyone must know who knows anything, he must already have when he comes to a special study. (1005b 11–17)

The LNC went largely unchallenged in the Western philosophical tradition for most of the ensuing two thousand years. It “formed a part of all articulated formal logics” and has “been a part of all logical theories” (Priest 2006b, 208), holding virtually unchallenged sway in Western thinking in all disciplines until the early twentieth century, with the exception of some strains of Neoplatonism and, closer to our own time, of Hegelianism. Even those like Jan Lukasiewicz, among the very few who have taken issue with his specific arguments in support of it, conclude that Aristotle was right to preach what he calls an “ultimate belief”

(1005b, 32) and what Lukasiewicz himself refers to as the “unassailable dogma” of the LNC (quoted in Beall 2004, 3). The canonical status of the LNC has imbued it with the force of a desire, in which dispassionate conviction and passionate investment are suspended in an unresolved tension. This internal residue of contradiction—an ambivalence reflected in the fact that the principle is referred to both affirmatively and negatively, as the Law of Contradiction and the Law of Non-contradiction—has given rise to the deep uneasiness in modernity regarding rationality, the Enlightenment, philosophical discourse, and their ambivalent relation to myth (Horkheimer and Adorno), ideology (Marx), the unconscious (Freud), and our prevailing understanding of language itself (Derrida). Since, as Aristotle emphasizes, the absence of contradictions is the very condition of possibility for knowledge, anyone who attacks such a foundational provision threatens the underpinnings of rationality and knowability themselves. The most consistent opposing logic to that of the LNC, as Aristotle is particularly aware in relation to the Pre-Socratics and Plato, is the tradition of dialectical reasoning, with its legacy down to our own times of Neoplatonic and Hegelian attempts to find positive significance in contradictions, in their ability to push inquiry into speculative modes of exploration and reflection. Aristotle steered philosophy firmly onto the road of discursive and syllogistic sequentiality, setting it squarely against Pre-Socratic, Sophistic, and in some respects Platonic tolerances for contradiction. Picking up the above passage, Aristotle continues:

Evidently then such a principle [as the LNC] is the most certain of all; which principle this is, we proceed to say. It is, that the same attribute cannot at the same time belong and not belong to the same subject in the same respect; we must presuppose, in the face of dialectical objections, any further qualifications which might be added. This, then, is the most certain of all principles. . . . For it is impossible for anyone to believe the same thing to be and not to be, as some think Heraclitus says. . . . It is for this reason that all who are carrying out a demonstration refer it to this as an ultimate belief; for this is naturally the starting-point even for all the other axioms. (1005b, 17–33)

For both Plato and Aristotle, the Eleatic paradoxes like those of Zeno were continuous in their ambivalency and instability, with the promotion nearer to their own time of the Sophists' pursuit of the political expediency of being able to argue with equal persuasiveness on either side of a question. Such deployment of dialectic in the service of the indeterminacy of truth, so readily manipulable in the pursuit of personal gain and political influence, was a major provocation for Plato and for the Socrates of the Platonic dialogues, in their concern for an articulation of a form of truth that would underwrite a stable law and governance in the city and a stable virtue and sense of value and felicity in the internal polity of the individual citizen. As Socrates reminds his interlocutors at a concluding moment in Book x of the *Republic*: "Yes, for the struggle to be good rather than bad is important, Glaucon, much more important than people think. Therefore we mustn't be tempted by honor, money, rule, or even poetry into neglecting justice and the rest of virtue" (Plato 1997, 608b, 3–6). The occurrence of poetry as the ultimate term of such a list of ethical, political, and epistemological threats rings oddly in our twenty-first-century ears, so aesthetic has poetry become as a social or political force. Not so for Plato, for reasons that bear directly on the delineation of the LNC and therefore of philosophy as the discourse of truth and of science in the Western tradition. In its material role in the articulation of philosophy as primary discourse of reason, I make the very sweeping observation that the LNC has underwritten the manner in which the genus of rational discourse has distributed itself in the ever-increasing evolution of species of academic disciplines in this tradition; one could say that the LNC is a key material condition for the rational articulation of disciplines, insofar as they are rationally and not merely historically and empirically defended. I will attempt to give general observation a degree of specificity by locating the LNC in what Jean-Pierre Vernant (1988) refers to (in relation to Greek tragedy) as its historical moment, a moment which occurs first in the work of Plato, and specifically in the argument of the *Republic*, that most sustained and unified of Plato's dialogues, one that a Plato scholar of our own time, Richard Kraut, has called with clear justification, "the centerpiece of Plato's philosophy" (1992, 10).

The strictures against poetry that Plato has Socrates elicit in the *Republic* occupy the greater part of three of the ten books of the dialogue.

What I would like to illustrate here is that the sustained arguments against the ethical and political value of poetry in the *Republic* are centrally implicated in the articulation in the dialogue of the LNC. Likewise, the hierarchy of discourses which Aristotle articulates, for instance in the *Poetics*, placing poetry in a mediate relation between philosophy and history, follows from Aristotle's "faith" in the LNC. Such a hierarchy of discourses has been the orthodoxy all through that historical phase in which the modern disciplines have articulated and organized into faculties. As Allan Bloom points out in his 1968 translation of the *Republic*, it is in a passage in Book IV in which we find what Bloom describes as "the earliest known explicit statement of the principle of contradiction—the premise of philosophy and the foundation of rational discourse" (1991, 457). The passage reads in the voice of Socrates:

It is obvious that the same thing will not be willing to do or to undergo opposites in the same part of itself, in relation to the same thing, at the same time. So, if we ever find this happening in the soul, we'll know that we aren't dealing with one thing but many. (436b)

Socrates arrives at this observation following the important discussion in Books II and III of the role of poetry and of Homer in particular in the youthful education of potential philosopher-rulers (on the role of poetry in Greek *paideia* see Havelock 1963), which is to say in the education of anyone who is able to achieve through philosophy the unity of an undivided mind informed by an awakening to the form and principle of "the good." For Socrates such a formation in philosophy and toward ideal leadership necessarily entails a revision of the poetic-mythic tradition with respect to the inconsistent, inconstant, and amoral image that it conveys regarding the gods. As Socrates says to Adeimantus in Book II: "You and I . . . are not poets but we *are* founding a city. And it is appropriate for the founders to know the patterns on which poets must base their stories" (379a). The idea that philosophers, rather than the gods or muses, could or should dictate to poets the pattern for their portrayal of the gods shows how fundamental a departure from tradition occurs in Plato's work (and how profoundly continuous and compatible are the Greek and later European Enlightenments). The pattern Socrates argues

for is the one articulated in the passage Bloom observes to be the first formal articulation of the LNC: namely, that “a god must always be represented as he is” and that a divine nature is always necessarily good and also unchangeably so, two principles that Socrates demonstrates, by quotations from Homer, Hesiod, and Aeschylus, to be consistently overthrown by the portraits given of the gods and their actions in the poetic tradition of Greece. Socrates goes on to quote a key passage from the final book of *The Iliad*, in which the narrator reflects on the sources of human destiny in the will of the gods: “There are two urns at the threshold of Zeus,/One filled with good fates, the other with bad ones” (379d). Socrates’ comment on the passage is unequivocal: “We won’t accept from anyone the foolish mistake Homer makes about the gods” (379c–d). In the context of Books II and III, not only are youth too impressionable to be exposed to such views of the arbitrariness and instability of an apparently passive, divinely ordained destiny, but by Book x Homer is presented as the figurehead of the paideutic tradition, a tradition that is best characterized, Socrates argues, as tragic in a quite primary and pervasive sense, and which as such is capable of carrying even the strongest, best, and most mature minds into a mimetic identification with states of feeling that are emotionally conflicted, contradictory, and inherently unable to sustain a hold on the unchanging qualities of truths that, in the argument of the *Republic*, find their ground and origin in the unitive Form of the Good. In the concluding argument for the exclusion of the poets from the ideal polis in Book x, Homer is cast as figurehead for the whole prior tradition of Greece, leading up to and making necessary the central argument of the *Republic* itself for the primacy of philosophical thought and understanding (Books VI and VII in particular). In Book x, Socrates admonishes his interlocutors thus:

And so, Glaucon, when you happen to meet those who praise Homer and say he’s the poet who educated Greece, that it’s worth taking up his works in order to learn how to manage and educate people, and that one should arrange one’s whole life in accordance with his teachings, you should welcome these people and treat them as friends, since they’re as good as they’re capable of being, and you should agree that Homer is the most poetic of the tragedians and the first among them.

But you should know that hymns to the gods and eulogies to good people are the only poetry we can admit into our city. If you admit the pleasure-giving Muse, whether in lyric or epic poetry, pleasure and pain will be kings in your city instead of law or the thing everyone has always believed to be best, namely, reason. (606e–607a)

The kind of dialectical instability Aristotle attributes to Heraclitean principles of change and the coincidence of opposites, and to Pre-Socratic dialectical thinking generally, Plato finds to govern the whole of the poetic tradition, presided over by a Homer who is the “first” and “most poetic” of the tragedians. The generic distinctions between lyric, epic, and dramatic are set aside here by Socrates in favour of a notion of tragedy that characterizes the heroic and mythic phase of Greek culture that in some way culminates in the generation before Plato with the tragic poets. He finds there a contradictory and fundamentally unstable and destabilizing image of truth, divided within and against itself, and therefore unable to provide a pattern for understanding, for justice, or for virtue. As Vernant (1988) poses the question regarding the historical moment of Greek tragedy proper: “[Tragedy] is born, flourishes, and degenerates in Athens, and all within the space of a hundred years. Why? It is not enough to note that tragedy is an expression of a torn consciousness, an awareness of the contradictions that divide [human beings] against [themselves]. We must seek to discover on what levels, in Greece, these tragic oppositions lie, of what they are composed and in what conditions they emerged” (25). For Vernant, the root of the conflict is the gap between a dying mythic and heroic tradition and an emerging social and political commitment to the rule of a law. In relation to what Vernant calls “the historical moment of tragedy,” such a gap between dying and dawning traditions is clearly visible and yet “narrow enough for the conflict in values still to be a painful one.” “The tragic consciousness of responsibility,” he says, “appears when the human and divine levels are sufficiently distinct for them to be opposed while still appearing to be inseparable” (1988, 27). The historical moment of tragedy for Vernant, in being defined by this living stage of an emerging and still painful tension between divinely and humanly attributed interpretations of human agency and responsibility, is followed immediately by the Athens of Socrates, Plato, and Aristotle.

In the *Republic* Plato has Socrates conduct a sustained argument against a poetic tradition steeped in what he argues is a destabilizing agonistic conflict between sacred and secular world views, an argument which by the end of the dialogue issues in a still uneasy and nervous rejection of the poets and the long tradition for which they stand. The poets and their defenders, Socrates recommends, should be offered a chance to argue for why they should be allowed to remain in the city. "But," says Socrates, "if it isn't able to produce such a defense, then, whenever we listen to it, we'll repeat the argument we have just now put forward like an incantation so as to preserve ourselves from slipping back into that childish passion for poetry that most people have" (607e). The clear insistence on the sole criterion of reasoned argumentation is mixed with a perhaps consciously ironic recognition that the poetic resources of incantation must still be invoked against a passionate, less than rational love for an outgrown tradition. Turning the incantatory resources of the religio-poetic tradition against it, Socrates affirms that lovers of reason "are well aware of the charm [poetry and all it stands for] exercises. But, be that as it may, to betray what one believes to be the truth is impious" (607c). This strong affirmation of belief in reason is echoed in Aristotle's promotion of the LNC, and surfaces again, as already mentioned, in the uneasiness within modernity of the relation between reason and its others.

II

The characteristic difference between Plato and Aristotle in relation to the LNC is apparent in the use to which each puts it and in particular the role each gives to dialectic in relation to it. Plato's view is economically configured in the analogy of the line that forms the concluding argument to Book VI of the *Republic*, preparing as it does for the allegory of the cave, which forms the opening passage of Book VII. Socrates resorts to the analogy as a means to visually sum up and configure his accumulating argument regarding the graded types of knowing, constituted by understanding, thought, belief, and opinion. Including the analogy between the Republic and the soul around which the whole of the dialogue is organized, the analogy of the line is one of four great allegorical figures in the *Republic*,

along with the allegory of the cave and the Myth of Er. The role of images, similes, analogies, allegories, and myths in Plato's thinking is a highly self-conscious and deliberate one; it occupies a central position in the *Republic* with regard to issues of mimesis and the relation between image and original, and is accented in a jocular exchange earlier in Book VI just prior to Socrates' explication of the analogy of the line. To the question of how it is that, given the apparent general derision in which philosophers are held in contemporary Athens, Socrates can argue that the ideal city should be ruled by philosophers, Socrates responds: "The question you ask must be answered by means of an image or a simile" (487e). This receives an ironical reception from Adeimantus that has Socrates freely admit to how "greedy" he is for images (488a). In the light of the persistent argument in the dialogue against the poets as mimetic artists, such an admission has a very pointed resonance and indeed bears on the vital question of the mimetic, imagistic character of the dialogue form itself as a mode of philosophical writing and on Plato's systematic use of and rationale for it.

My concern with the analogy of the line and of its relevance to the question of dialectic and contradiction in relation to the LNC will focus on the role images play in the key difference the analogy configures between rational thought and dialectical understanding (*dianoia* and *noesis*). In Book VII, Socrates speaks at some length about what he terms "summoners." Summoners are the kind of contradictory perceptions that, like a stick in water, in appearing to possess two directly opposing qualities at the same time, summon thought to reach beyond sensible appearances to intelligible relations. In the analogy of the line, the line is divided first between sensible and intelligible forms of knowing, and then again into two forms of each: opinion and belief as sensible forms of knowing and thought and understanding as intelligible forms. At the intelligible level Socrates cites geometry as an example of the difference between thought and true understanding. Geometers, Socrates says, are interested only in the functionality of their axioms rather than their theoretical import. As he explains, geometers "make their claims for the sake of the square itself and the diagonal itself, not the diagonal they draw . . . they now in turn use images, in seeking to see those others themselves that one cannot see except by means of thought" (510d–e). That is to say, geometers exploit the

difference between the sensible and the intelligible without responding to the difference, even opposition, that persists between them; they ignore their dependence on the imperfect sensible image they draw in order to illustrate the ideal intelligible form about which they hypothesize.

Because they are not concerned with such a contradiction—it does not intrude on geometrical calculation—geometers do not find in it a summoning to that inquiry which Socrates terms dialectic and which draws the inquirer from hypothesis to the principles which geometers, and all those concerned with knowledge as distinct from opinion, must necessarily assume. Such a further level of inquiry forms, as it were, the truly intelligible relation to the intelligible realm, constituted, as Socrates speculates, by the principles that he here calls “forms,” which themselves find their principle in the Form of the Good. Without engaging the fraught question of the Platonic forms, our interest here is in the differentiation Socrates establishes between a use of hypotheses which ignores contradictions in favour of useful applications and one that finds in contradictions a summons to the further and more properly philosophical level of inquiry Socrates terms “dialectic.” It is a use of the notion of contradiction and dialectic quite unlike that which both Plato and Aristotle find so problematic and inadequate in the Eleatics, the Sophists, and the tragic poets. Socrates explains the difference between the two forms of the intelligible—the philosophical and the mathematical use of hypotheses—which are figured in the analogy of the line as the difference between understanding and thought: “Then also understand,” says Socrates, “that, by the other subsection of the intelligible, I mean that which reason itself grasps by the power of the dialectic. It does not consider these hypotheses [such as geometrical axioms] as first principles but truly as hypotheses— . . . as stepping stones to take off from, enabling it to reach the unhypothetical first principle of everything” (513b).

The analogy of the line plays a key role in the overall argument of the *Republic* regarding the nature of our relationship to the founding principle of the good and its expression in personal, social, and political life: that is to say, to the nature of justice. It follows directly on that central treatment in the dialogue of the sublime nature of the good as such, a passage indistinguishably ethical, epistemological, and ontological:

When [the soul] focuses on something illuminated by truth and what is, it understands, knows, and apparently possesses understanding, but when it focuses on what is mixed with obscurity, on what comes to be and passes away, it opines and is dimmed, changes its opinions this way and that, and seems bereft of understanding.

So that what gives truth to the things known and the power to know to the knower is the form of the good. And though it is the cause of knowledge and truth, it is also an object of knowledge. (508d–e)

The nature and character of knowledge, in other words, is derived from the nature of its source in that stable principle of principles, or rather principle beyond principles, which is the good: “Therefore, you should also say that not only do the objects of knowledge owe their own being known to the good, but their being is also due to it, *although the good is not being, but superior to it in rank and power*” (509b; emphasis mine). Thus, in the analogy of the line, hypotheses are not considered “as first principles” but rather “as stepping stones to reach the unhypothetical first principle of everything” (511b), which is the good. Hypotheses and their propositions are both necessary in the dialectical process and insufficient in themselves. As Francisco Gonzales puts it: “Even once we have gained access to a truth that transcends the hypotheses, we must nevertheless return to them in our discourse and in our further inquiry” (1998, 240). This contradiction at the heart of inquiry itself is, thus, for Plato motivated by that which is ultimately necessary to knowledge and which is by its very nature beyond the realm of determinate, propositional, subject-object, and subject-predicate logical and linguistic determinations. That is to say, it is beyond them but is reached by means of them and must be expressed within their constraining and, with respect to the demands of knowledge as distinct from belief, necessarily contradictory relations. It is thus for Plato reasonable and necessary that reason know and understand its relation to that from which it draws its rationale.

In Socrates’ distinction between thought and understanding, between hypothesis taken as authoritative principle and hypothesis taken as summons to further inquiry, we find two applications of the law of non-contradiction that are broadly Aristotelian and Platonic respectively. Aristotle’s insistence that the LNC is non-hypothetical follows

from apparent rational necessity, that it is unreasonable that it could be inconsistent with itself. Plato, on the other hand, has Socrates take very pointed interest in the opportunity presented by some kinds of contradiction to push inquiry further. Without making too much of this analogy between Plato's and Aristotle's attitudes to contradiction and hypothesis, I would suggest that the relatively unchallenged status of Aristotle's promotion of the LNC into a long-time shibboleth of Western epistemology is reflected in our greater concern with proof and demonstration than with the dynamism of inquiry represented by the body of work of his teacher, Plato, the first philosopher of this tradition: the centuries of debate over proofs for the existence of God is certainly symptomatic of such aspiration to rational demonstration of what for Plato lies beyond the realm of beings susceptible to propositional definition. As Graham Priest views it:

It is fair to say that, at least since the Middle Ages, Aristotle's views concerning contradiction have been orthodoxy. (This is so obvious, that it is hardly worth documenting.) They are taken for granted so much that, as far as I know, there is no sustained defence of the LNC in Western philosophy other than Aristotle's. Why? I really don't know. It is certainly not because of the rational persuasiveness of Aristotle's arguments. I suspect (unhappily) that the view was accepted simply on the basis of the magisterial authority of Aristotle's texts in the Middle Ages. In general, that authority disappeared long ago, of course. In logic it hung on till the twentieth century; most of it there has been swept out since then, but the views about contradiction have hung on doggedly. (2006a, 121)

The dialogical and dialectical expression of his thought is deliberately chosen by Plato for philosophical reasons, reasons that Gonzalez (1998) styles Plato's philosophical mimesis (see his chapter 5 on the *Republic*, entitled "Philosophical Imitation"). The preoccupation with literary and generally aesthetic questions in the *Republic* has a very specific purpose for Plato in distinguishing what is the crucial, but decidedly subtle and—most importantly for my purposes here—contradictory relationship between literary and philosophical forms of mimesis: both draw on images to represent their meaning, but like geometry, poetry does not inquire into

those apparent contradictions that arise in its process of giving linguistic and imagistic expression to its representations: contradictions, to use an example of Plato's, such as the flagrantly immoral behaviour of the gods by which we as human beings are supposed to measure and interpret our own existence. Instead of finding in such contradictions a summons to dialectical inquiry into the perplexity and ambiguity of our conception of the gods and of what we mean by morality, poetry, Plato argues, draws us into passionate identification with rather than a querying of the elements of such a relationship and of such moral imperatives. It is dialectical inquiry that we need, not passionate identification, argues Plato, dramatizing such inquiry in his peculiarly undramatic dialogues, texts that must be read and pondered and would offer little satisfaction were they performed on a stage.

III

If there is, as Vernant (1988) suggests, a historical moment of high Greek tragedy that flourished in Athens in the fifth century BCE, it might be pertinent to see in the currently pervasive concern with interdisciplinarity a historical moment of a certain exhaustion of autonomous disciplines, a moment marked by a globalizing and converging experience that makes it palpably necessary for us to think in more highly integrative terms regarding the aggravated challenges that a historic disciplinary atomism has generated. By similar extension, there could be argued to be, in the generation following tragedy, a historical moment of philosophy that is vividly instanced in the articulation of the LNC by both Plato and Aristotle. However, it could just as well be observed that, insofar as we are still and perhaps more explicitly than ever occupied with the question of what constitutes and characterizes rational inquiry as such, there is no historical moment, or rather that we are in the orbit of an overall condition that is history as such, a condition that is at least not without structure, one marked quite definitively by Plato, and that receives a determining, and arguably a narrowing, in Aristotle, a structure with whose entelechy we have been ourselves historically, rationally, and dialectically engaged. There is an inherent circularity in our relation to the logic of inquiry, our

inquiry into inquiry, which, as Heidegger observes, we must resist seeing as a *circulus vitiosus*:

But even in the opinion of the historian himself, it would admittedly be more ideal if the circle could be avoided and if there remained the hope of creating some time a historiography which would be as independent of the standpoint of the observer as our knowledge of Nature is supposed to be. *But if we see this circle as a vicious one and look out for ways of avoiding it, even if we just 'sense' it as an inevitable imperfection, then the act of understanding has been misunderstood from the ground up. . . .* What is decisive is not to get out of the circle but to come into it in the right way. (1962, 194–95)

With Plato, Heidegger argues that a “definitive ideal of knowledge” (*more geometrico*, as with the LNC) is “not the issue.” Rather: “Such an ideal is itself only a subspecies of the understanding—a subspecies which has strayed into the legitimate task of grasping the present-at-hand in its essential unintelligibility” (194). An intelligible unintelligibility that is not a vicious circle . . . this is the very non-ideal ideal that has to be kept in mind in thinking through the challenges of interdisciplinarity. An attempt to rationalize the interdisciplines with a traditional application of the principle of non-contradiction will founder and distort rather than engage the full complexity of the question of knowledge and its languages.

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6

Interdisciplinarity, Humanities, and the Terministic Screens of Definition

JULIE THOMPSON KLEIN

Inter-disciplinarity is problematised, as it abounds and proliferates.

Richard Marsden, "Aphorisms on Disciplines"

Richard Marsden's aphorism is a fitting epigraph for an essay on the scope of interdisciplinarity.¹ It frames the debate on the meaning of a concept that proliferated over the course of the twentieth century. As the concept proliferated, its practice pluralized. To echo another conference participant, Harvey Graff, interdisciplinarity now varies by field, time, place, relationships, and circumstances. Inevitably, too, differing claims arose. Graff called the spectrum "wide but not straight," and fellow participant Ian Angus argued that definitions are cogently related to an individual's position, current institutional priorities, and possibilities for alternative forms of knowledge production. Some participants treated interdisciplinarity as an epistemological question, while others focused on institutional structure. Some focused on pedagogy, while others highlighted the situated practices of new fields, Theory, and "non-academic" knowledge. This essay addresses the task of defining interdisciplinarity in two ways. Part I begins with an overview of key developments in the humanities,

then turns to the ways they have been remaking the subject, the object, and scholarship within three disciplines—literary studies, art history, and music studies. Part II analyzes the rhetorical boundary work of specialized terminology in taxonomic classification, then turns to current heightened interest in transdisciplinarity.

THE CHANGING HUMANITIES

When the modern disciplines formed in the late nineteenth and early twentieth centuries, the term “humanities” designated a range of culture-based studies, including literature, philosophy, art history, and often general history (Veysey 1979, 58, 64). Although interdisciplinarity was not yet a recognized movement, the historical warrants in the humanities were the generalist model of culture, a synoptic view of subjects, and interart comparison within synchronic eras. Period style was the most powerful basis of relationship, grounded in common motifs, themes, and genres within a particular era. Historical empiricism and positivist philology dominated the scholarly practices of the new disciplinary specialists. However, over the course of the twentieth century increasing attention was paid to the social contexts of aesthetic works and the responses of readers, viewers, and listeners. The concept of culture expanded from an aesthetic focus on elite forms to a broader anthropological notion, and once discrete objects were reimaged as forces that circulate in a network of forms and actions. New theoretical and critical approaches also emerged. The importation of European philosophy and new literary theories began in the 1950s, with existentialism and phenomenology. In the 1960s, the impact of the Saussurean theory of language gave rise to structuralist influences across the humanities and social sciences, including the anthropology of Lévi-Strauss, the psychoanalysis of Jacques Lacan, the Marxist theory of Althusser, and the philosophical-literary movement of deconstruction of Jacques Derrida. All made significant inroads into North American academies. During the late 1970s and early 1980s, interest in feminism and semiotics widened and, further into the 1980s, a number of practices lumped under the label “poststructuralism.” In addition to deconstruction, feminism, and Lacanian analysis, they included a form

of French post-structuralist theory, new historicism, Foucauldian-style studies of knowledge and power, and cultural and postcolonial critique. By the 1990s, many discourses were also positioning themselves under the rubric “multiculturalism” (Bender 1997b, 43–45; Bender and Schorske 1997, 9; Kellner 1995, 20–24; Klein 2005, 34–54).

The changes associated with these developments have been described in many ways. Thomas Bender grouped a number of trends in the humanities and social sciences under the label “cultural turn.” Together they fostered a wider and more critical perspective on the study of culture (Bender 1997b, 41–42). The changes have also been stylized as historical, sociological, and political “turns.” The historical turn that occurred in the late twentieth century stood in stark contrast to disciplinary relations at mid-century. In the 1950s, the cutting of ties with history was so widespread that Carl Schorske (1997) called it a generalized paradigm shift in academic culture. Social scientists turned to behaviourism and natural-scientific modes, while humanists turned to self-referential formalistic criticism. During the 1960s and 1970s, a variety of “new histories” opened new space for interdisciplinary contextualizations.

Peter Burke (1991) identified six points of comparison between the Old and the New within the discipline of history and its uses in other disciplines and fields. Four are particularly relevant to the changing relationships of the humanities and social sciences. The first distinction lies in subject and object. The traditional paradigm of historical study accentuated politics of the state in national and international contexts. The new history embraced virtually all human activities. The second distinction is method and approach. The traditional paradigm privileged narration of events while focusing on regimes and administrations, legislation and politics, diplomacy and foreign policy, wars and revolutions. Today’s practices tend to be analytic and thematic, and some of the most influential new work is emanating from efforts to recast intellectual history as cultural history. The third distinction lies in the difference between the traditional “history from above” and the new “history from below,” taking into account the everyday experience of ordinary people. The fourth distinction follows from the third. Instead of prioritizing archival documents, records, and treatises, new scholarship draws on a greater variety of evidence, using statistics, oral history, visual images, material

culture, sociological models, and psychological theories. Official records are also being read in new ways.

The re-engagement with sociology and politics differed. It was linked more closely to the 1960s and 1970s, especially new social movements that challenged established forms of society and culture, produced countercultures, and stimulated interest in all social classes. Douglas Kellner cautions, though, that renewal of social and political interests was more than simple nostalgia. The new subfield of social history fostered greater space for popular histories and popular culture in multiple disciplines and fields. The momentum created by postmodern discourses in the 1970s and 1980s also reinvigorated sociological and political scholarship. In addition, the problems of the contemporary world and new technological and economic systems called for new theoretical and political modes of understanding linked with struggles for human rights, the civil liberties of oppressed people, peace and justice, ecology, and the search for a more humane organization of society on a global scale (Kellner 1995, 1, 17, 19). Rick Szostak remarked during the symposium in Edmonton that interdisciplinary humanists are more likely to focus on theory than on a problem or issue more typical of interdisciplinarity in the social sciences. Yet problem- and issue-focus heightened as a result of the historical, social, and political turns, fostering greater interest in contexts framed by questions of cause and effect, motive, social structure, and power and authority.

For their part, social scientists looked increasingly toward the humanities. In 1980, anthropologist Clifford Geertz (1980) called attention to a shift within intellectual life in general and within the social sciences in particular. The model of physical sciences and a laws-and-instances ideal of explanation, Geertz contended, was being supplanted by a case-and-interpretation model and symbolic form analogies. Social scientists were increasingly representing society as a game, a drama, a discourse, or a text, rather than a machine or a quasi-organism, and they were borrowing methods of speech-act analysis, discourse models, and cognitive aesthetics. This shift crossed the traditional boundary of explanation and interpretation, replacing former keywords of "cause," "variable," "force," or "function" with a new vocabulary of "rules," "representation," "attitude," and "intention." They began talking of "actors," "scenes," "plots," "performance," and "personae." Not all social scientists took the

turn that Geertz described. All the same, the stress on empirical research and logical positivism of the 1950s and 1960s eased, giving way to a growing interest in how people make and communicate meaning. Increasing frustration with methodological purism and naïve empiricism, coupled with critical debates on methodology, also encouraged a “third methodological movement.” Mixed methods draw from both quantitative and qualitative traditions, combining them in unique ways to solve practical research problems and to answer research questions (Tashakkori and Teddlie 2003).

Humanists responded to new developments by moving in two directions. Some, Bender recalls, expanded the domain of the humanities. Others assumed an increasingly defensive posture. A new ideology also emerged in forms of cultural studies aligned with the vision of a postdisciplinary academy. The postmodern hope of greater cosmopolitanism is belied by increased fractionality, and discipline-based departments continue to be the dominant organizational unit of the academy. Yet they no longer clearly or fully represent the intellectual work carried out within traditional structures. Moreover, “culture” is no longer the sole province of language departments and disciplines such as history and literature. Traditionally, the study of less familiar cultures was located in area studies, international relations, and anthropology. Today, more interactive definitions of culture and cultural relationships are appearing across the humanities and social sciences. Moreover, exclusive control of culture as it relates to mass communications, social issues, the family, and the cultural text is being challenged (Bender 1997a, 3; 1997b, 35, 44–47).

The cumulative effect of new developments also fostered the notion that interdisciplinarity is increasingly important to the conduct of humanistic inquiry. This notion was affirmed by the president of the American Council of Learned Societies, an umbrella organization in the United States for professional groups representing both the humanities and social sciences. Stanley Katz (1996) highlighted two mounting pressures on academic organizations: the weakening of disciplinary boundaries and the emergence of new organizational structures of knowledge. Since the mid-1960s, this twofold pressure has led to the creation of new fields such as African-American studies, women’s studies, and ethnic studies. Such fields marked the possibility of a more flexible design with

the potential to transform the paradigm of the disciplinary department. The radicalism of the 1960s, alternative definitions of culture and politics, and challenges to the existing structure of higher education also encouraged methodological creativity and experiments with new approaches. Many academics today, Katz found, are by inclination or training “multi-,” “inter-,” or “non-”disciplinary. Not surprisingly, then, changes took root within disciplines.

Subject, Object, and Scholarship

As new developments took root, the nature of the subject, the object, and scholarly practices changed. In literary studies, Richard Ohmann recalls, the success of Theory justified including “literally everything” from film, romances, and hip-hop to museums and sexuality. The canon also broadened as greater attention was paid to national literature beyond the historical foundation of British literature (e.g., American and Canadian) and works by once-excluded groups (e.g., women, African-Americans, Latinos). Echoing the pattern in the discipline of history, interest in popular culture also eroded the traditional boundaries of “high” and “low” forms of cultural expression, and new media became the focus of increased research and teaching (2002, 216–18). Reflecting on expansion of the discipline’s objects of study and subject field, John Carlos Rowe concluded: “Literature as it was can’t be saved.” It now encompasses older texts and “extraliterary” materials such as letters, diaries, films, paintings, manifestos, and philosophical, political, psychological, religious, and medical treatises (1992, 204).

Scholarship changed in turn. From roughly 1860 to 1915, philology and literary history were the dominant practices. The new disciplinary science of literary study emphasized editing and annotating texts; compiling bibliographies, dictionaries, and concordances; conducting source and etymology studies; discovering facts; and writing biographies and literary and intellectual histories (Miller 1991, 119–20). In the 1930s and 1940s, criticism became the dominant practice, though it was not a monolithic one. One strain, led by the New Critics, emphasized aesthetic formalism in close readings of poems treated as organically unified objects. The other, led by the Chicago Critics, emphasized theory and argued for a pluralist approach and humanist moralism focusing on the qualities that

literature shares with philosophy, ethics, and general ideas (Leitch 1998, 62; Shumway and Dionne 2002a, 8–9; Graff 1987, 148). By 1981, when the Modern Language Association's authoritative *Introduction to Scholarship in Modern Languages and Literatures* appeared, both of the trends noted in the opening account of new developments were apparent: one moving toward the speculative and abstruse world usually dubbed "Theory," and the other toward the complex relationship between scholarship and the "real world." The 1992 update introduced a new category, Cross-Disciplinary and Cultural Studies, with separate sections on interdisciplinary, feminist and gender, ethnic and minority, border, and cultural studies (Gibaldi 1992). The category did not appear in the 2007 update, but gender, sexuality, race, and migrations are now treated as interdisciplinary "topics" within the discipline (Nicholls 2007).

New developments compound the task of mapping interdisciplinary studies. Giles Gunn identified four approaches in literary studies. The traditional critical coordinates are author, reader, material or linguistic components of a text, and the world. The map changes depending on which coordinate is the axis. If *text* is the axis, a number of developments appear, including structuralist, formalist, and generic interests; hermeneutics, or interpretation theory; and certain forms of Marxist criticism. If *reader*, others appear, such as audience-oriented criticism. The most conventional strategy of mapping is tracing the relationship of one discipline to another. Mapping *literature and anthropology*, for instance, reveals practices of structuralism, ethnography, or "thick description," folklore and folklife studies, and myth criticism. Mapping *literature and politics* reveals sociological criticism, cultural studies, ideological criticism, materialist studies. The map changes, however, when asking a different question. What new subjects and topics have emerged? Other examples appear, including materialism of the body, psychoanalysis of the reader, the sociology of conventions, and the ideology of gender, race, and class. The final and most difficult approach is rarely acknowledged. Correlate fields such as anthropology, philosophy, religious studies, and psychology have changed. "The threading of disciplinary principles and procedures," Gunn concluded, "is frequently doubled, tripled, and quadrupled in ways that are not only mixed but, from a conventional disciplinary perspective, somewhat off center." They do not develop in a linear

fashion, nor are they traceable in all their effects. They are characterized by overlapping, underlayered, interlaced, crosshatched affiliations, collations, and alliances that have ill-understood and unpredictable feedbacks (1992a, 248–49).

The object, the subject, and scholarship also changed in art history. New stylistic movements such as pure form, colour field painting, and minimal art had little in common visually with earlier traditions. The canon of art expanded to include the works of women and different cultural groups. The boundary between high and low or popular art eroded, legitimating the artistry of once-excluded objects such as furniture and quilts, cartoons and graffiti, commercial illustrations, and tattooing. The repertoire of works expanded on a global scale with large exhibits on Chinese painting and excavations, African art, and the art of the Mamluks and the Mughals. And new hybrid genres emerged. Performance art combined music, visual art, literary expression, and theatrical performance (Kraft 1989, 64–65). Interart forms crafted from new media and digital technology also began appearing, and multi-genre forms emanated from cultural movements for identity and equality, such as the Black Arts movement and the Chicano Performing and Graphic Arts.

Scholarship changed in kind. During the late 1980s, historical empiricism and traditional-style analysis dominated the mainstream, but talk of “new art history” grew. Selma Kraft identified two general directions of change. One—from the social sciences—accentuated production and use, focusing on political, cultural, social, and economic conditions under which art is made and on subjects such as patronage, the art public, and workshop practices. The other—closer to the humanities—drew on critical, semiotic, and deconstructionist approaches, especially from literary theory and philosophy. The new art history critiqued assumptions about self-evident meaning and uniformities of interpretation that ignore differences of ethnicity, race, gender, and class. Scholars also began treating artworks as texts and structures of signification whose meaning depends on the interpretation that is applied. They weighed the relative merits of disciplinary methods and protocols, examined origins of the discipline, and explored processes of professionalization. They expanded the discipline’s relationship with art criticism, aesthetic philosophy, markets, exhibitions, and museology. They used insights from Marxism to understand

social and economic determinations. They imported explanations of repressed instincts from psychoanalysis, power relationships from political theory, institutions from sociology, and structures from anthropology (Kraft 1989, 65–66). The new art history is not focused solely on the present. Scholars are returning to earlier periods to understand, for instance, paleolithic imagery and marking and palimpsesting through the lens of alternative critical approaches. They are also bringing new insights to bear on iconography, attribution of works, and genre definition (Preziosi 1989, 155).

New developments also made inroads within the discipline of music, though more slowly. Arnold Schoenberg's first non-triadic, non-tonal compositions in 1907 were a symbolic turning point. Schoenberg's twelve-tone system was the starting point for contemporary avant-garde compositional theory (Kerman 1985, 69). Over the course of the century, the nature of "music" continued to change. Artists such as John Cage sought a unique sound corpus for each composition and allowed the indeterminacy of chance and randomness to determine musical materials and order. Noise, and even silence, gained a place in the definition of music. In the 1960s, borrowing also became a major compositional practice, initially in quotations of established Western tonal forms, then early historical styles and popular, folk, and non-Western music. New hybrid genres such as performance art further challenged the traditional boundaries of discipline, and orchestras and opera houses began to combine recent and older music and to play secondary composers. The current pluralism, Robert Morgan concluded, has rendered music a "melange of conflicting subcultures" that interact in complex ways, challenging the notion of a dominant musical mainstream (1992, 57).

Scholarship expanded in kind. Initially, Levy and Tischler (1990) recall, aesthetic and antiquarian interests dominated. Three approaches prevailed well into the twentieth century: biographies, sentimental local studies, and compendia of music groups, performers, and institutions. Concert or art traditions were privileged, though some early composers drew on vernacular sources. Over time, music histories broadened to include historical and cultural contexts, the social and political role of music, popular genres, women and other cultural groups, and oral and regional traditions. In the late 1950s and early 1960s, empirically grounded

facts and historicism were prioritized (Shepherd 1991, 190). New scholarship redefined meaning as an interplay of musical texts, cultural contexts, dynamics of performance, and the experience of listeners. Marxists critiqued essentialist binaries, especially separations of serious and popular music and the individual and the social. Poststructuralist criticism linked notions of truth with systems of power, interrogating the master narrative of tonality. Postmodernist critique of global universalizing stimulated interest in local, everyday, variable, and contingent aspects of music making. Deconstructive analysis unveiled operations of power related to gender, race, and class. Feminist, gay, lesbian, and Black scholars uncovered the history of lesser-known composers. Heightened interest in popular and folk cultures also stimulated studies of contemporary genres, communication-centred folklorists began examining the social organization of community music making, and musicologists borrowed ethnomusicological methods and fieldwork techniques from anthropology to study the distant past (Allen 2001, 185; for fuller accounts of the changes in this section, see Klein 2005, 83–150).

Discipline and Method

Inevitably, fears about disciplinary purity arose. Disciplinarity is defined in various ways: as a subject matter, a system of control, and a process of knowledge production. Likewise, its relationship with interdisciplinarity is defined differently: as a corrective or counterforce and as a complementary partner in the process of knowledge production. In his opening keynote address at the symposium in Edmonton, Martin Jay treated disciplines as “relational networks,” highlighting their dynamic properties in the larger force field of knowledge formations. The metaphors of “force field” and “network” acknowledge the boundary work of claims making while calling attention to the porosity of boundaries that shift, fracture, dissolve, and reformulate. Speaking from the vantage point of art history, Donald Preziosi observed that disciplinarians also position themselves differently: as interventionists working from outside traditional disciplines, as integrationists striving to create a larger field, and as agents of a critical return to an original conceptual foundation. The salient issues in debates on the discipline hinge in no small part on boundaries and the proper domain or object of study (1989, xiii, 2, 7, 18, 157–58).

In literary studies, opponents of change revalidated the Renaissance ideal of *literae humaniores*, rejected the arcane language of Theory, and resisted the distractions of politics. In art history, the tension between traditional connoisseurship and a new social history of art reinvigorated earlier debate on the ground of an expanding canon and critical approaches, amplified by tensions between modernist and poststructuralist semiologies. In music, a similar debate on intrinsic versus extrinsic meaning gained momentum, driven by the expanding plurality of objects, greater attention to contexts of aesthetic production and reception, and widening interest in ethnomethodology and popular culture. Inevitably, too, talk of a “new interdisciplinarity” arose in the humanities. E. Ann Kaplan and George Levine aligned it directly with increased recognition of the arbitrary nature of disciplinary boundaries (1997, 3–4). In a widely cited polemic, though, Stanley Fish (1985) challenged the underlying logic of new interdisciplinarity. As an agenda, interdisciplinarity seems to flow naturally from the imperatives of left culturalist theory. Yet, Fish argued, any strategy that calls into question the foundations of disciplines theoretically negates itself if it becomes institutionalized.

Others weighed in when the Modern Language Association (MLA) published results of a call for responses to the question of whether interdisciplinarity is actually being achieved. Alan Rauch replied that the profession’s sense of the idea had not changed much. The figure of the eclectic polymath remained predominant, validating disciplinary boundaries and suggesting that interdisciplinarity is about capacity and retention more than synthesis and analysis. Yet the popular image of interdisciplinary programs disguises the more complex cultural matrix of inquiries, including Rauch’s own field of science, technology, and society studies, where a more sophisticated dissolution of disciplinary boundaries has occurred in research and curriculum. Derek Attridge concurred. Attridge distinguished feminism, deconstruction, and cultural studies from the absorptive process and called the creation of new disciplines an “inherent” function of interdisciplinarity, though it runs the risk of producing inhibiting codes and cultures (“Forum” 1996).

Changes are also apparent in the methodological tool kits of disciplines. Borrowing has increased across boundaries, and a greater hybridity of method has challenged the long-held assumption that

theoretical-textual modes are the business of humanists and data-driven modes are the lot of social scientists. In the rapidly growing field of digital humanities, for instance, the shift from page to screen is marked by greater use of technological methodologies in computational linguistics and text editing, as well as intersections with the social sciences in studies of networked identity and subjectivity. Angus also called attention to a new synthesis in communication studies formed by intersections of social science research on mass media's impact on society, the classical tradition of rhetoric, and investigations of interpersonal communication. In the field of cultural studies, traditional humanistic approaches are also being combined with cultural anthropology and new ethnography, oral history, social history and the study of material culture, reader-response criticism, and transnational perspectives. Sometimes methods are combined, meshing survey research with ethnography, information from marketing research with utopian conceptions of empowered consumers, and textual or ethnographic analysis with social, political, and cultural commentary. Methods usually reflect original disciplinary training, amplified by situational borrowings (Nelson, Treichler, and Grossberg 1992, 2–3, 10–11). At the same time, traditional approaches continue. Archival work has been crucial to establishing accurate editions, taxonomies, bibliographies, discographies, and authentic performances. Traditional skills of textual analysis, narratology, iconography, and musicology are also being redeployed in the study of new objects (Goodwin and Woolf 1987, 135).

Nonetheless, limits persist. In popular music studies, John Shepherd reported, contexts are often isolated and individuals are still influenced by the problematics of their own disciplines and fields. Neither of the two principal disciplines that have contributed to popular music studies—sociology and musicology—has adequate theoretical protocols for understanding the meaning of popular music. Sociologists tend to believe answers to the question of meaning are found in contextual processes—social, historical, cultural, economic, political, psychological, and biographical in nature—that are extrinsic to an event but imbue it with meaning and significance. Musicologists tend to believe answers lie in textual processes—oriented to sonic, motional, verbal, and visual properties (1991, 197, 204–8). In English studies, Linda Pratt (2002) reported, research still tends to be solitary, incorporating fragments of

history, sociology, ethnography, and psychology as contexts for a broad definition of texts. The surface evidence of publication, Jacqueline Henkel commented in the *MLA Forum*, suggests that scholars and teachers are invested in interdisciplinary research. Yet models and modes of discourse in other fields are not regularly examined. Sara Van den Berg also cited the crossfire of legitimation. Some psychoanalysts smirk at literary critics' assumption that psychoanalytic theory stopped with Freud (or Jung, Winnicott, or Lacan). Literary critics smile back at psychoanalysts' assumption that literary theory stopped with New Criticism. Sociologists criticize literary critics for pirating odd bits of sociological thinking, but come under attack themselves for "content analysis" of literature without regard for interpretation or aesthetic qualities ("*Forum*" 1996).

Claims for cultural studies are checked by limits as well. Cultural studies, Jo-Ann Wallace (1995) warns, holds the potential for collaborative work, more flexible exchanges and groupings, and new questions and knowledge. Yet the "easy slippage" into cultural studies poses a serious threat to small disciplines, such as art history, film studies, classics, and philosophy. Joining a modern languages department or a comparative cultural studies department might result in productive collaboration, but the integrity of subjects does not follow naturally when faculty members are moved around. Even if faculty in English studies can "do" cultural studies, Wallace cautions, they cannot necessarily teach art history, film, philosophy, or other disciplines. The utopic promise of new interdisciplinarity collapses in a superficial eclecticism promoted under the banner of a dubious fusion of literature, art, music, and other humanities. The renewal of the cultural function of literature (and other humanities disciplines) also collapses. It is no longer waged on the ground of liberal humanism but a polyglot specialization in a field crowded with competing subspecialties.

THE TERMINISTIC SCREENS OF INTERDISCIPLINARITY

The meaning of interdisciplinarity was implicated at every turn in the changes described in the first section of this essay. Proponents distinguished their individual projects, but new discourses fostered a new

generalism that countered both the traditional unified vision of culture in the humanities and the modern system of disciplinarity. The new generalism was not a unified paradigm. It was a cross-fertilizing synergism in the form of common methods, concepts, theories, and a shared metalanguage. A new rhetoric of interdisciplinarity developed in kind. “Plurality” and “heterogeneity” replaced “unity” and “universality.” “Interrogation” and “intervention” supplanted “synthesis” and “holism,” and older forms of “interdisciplinarity” were challenged by new “anti,” “post,” “non,” and “de-disciplinary” formulations. A host of other terms also appear in the discourse on interdisciplinarity, from “indiscriminate” and “auxiliary” to “free-range” and “cosmological” forms. Harvey Graff, elsewhere in this volume, has criticized “the swamp of confusing, conflicting, and contradictory definitions,” branding the proliferation of hyphenated coinages “silly, even funny.” Yet comparative analysis of nomenclature is crucial to understanding overlapping and differing claims, patterns of practice, and institutional priorities.

Kenneth Burke’s notion of “terministic screens” is particularly helpful for thinking about nomenclature. We must use terministic screens, Kenneth Burke admonished, since we can’t say anything without using terms. Furthermore, labels screen, filter, direct, and redirect attention in certain directions rather than others. Burke distinguished two basic types: terms that put things together and terms that take them apart. “The choices we make,” he added, “constitute an additional kind of screen that directs attention to one field or another, and even within a single field further screens direct attention while shaping the range of observations implicit in particular words.” Nomenclature, therefore, is not simply a “reflection” of reality, it is also a “selection” and a “deflection” of reality (1966, 45–46, 49–50). The earliest uses of the keyword “interdisciplinary” have been traced to the opening decades of the twentieth century, in social science research and the general education movement. The most prominent terminology, though, derives from a typology presented at the first international conference on interdisciplinary research and teaching, sponsored in part by the Organisation for Economic Co-operation and Development (OECD) in 1970 (OECD 1972). The three most widely cited labels in the typology are “multidisciplinary,” “interdisciplinary,” and “transdisciplinary.” Figure 6.1 groups a number of prominent terms from

the discourse and Graff’s litany of examples in order to help us understand the patterns of meaning they screen. (For more extensive considerations of terminology, see Klein 2009, 2010.)

The Interdisciplinary Spectrum

<i>Multidisciplinary</i>	<i>Interdisciplinary</i>	<i>Transdisciplinary</i>
juxtaposing	integrating	transcending
sequencing	interacting	transgressing
coordinating	linking	transforming
	focusing	
	blending	
	intermeshing	

Degrees of Integration and Disciplinary Interaction

Partial integration	_____			Full integration
Bridge building	_____			Restructuring
Encyclopedic	Contextualizing	Auxiliary	Generalizing	
Indiscriminate	Composite	Supplementary	Integrative	
Pseudo		Structural	Conceptual	
			Unifying	

Degrees of Scope and Team-Based Collaboration

Narrow	_____	Broad or wide
Shared	_____	Cooperative

Other Key Distinctions

- Methodological versus theoretical
- Instrumental versus critical
- Endogenous versus exogenous

Figure 6.1. Typologies of interdisciplinarity (adapted from Klein, “The Taxonomy of Interdisciplinarity” [2010])

The groupings depict two major sets of differences: (1) of integration and interaction of disciplines, and (2) goals and purposes. At the

Multidisciplinary end of the spectrum, juxtaposing and sequencing disciplines fosters greater breadth of knowledge, information, and methods. Yet the relationship of disciplines is loose and restricted, their elements retain an original identity, and the existing structure of knowledge is not questioned. The descriptors *encyclopedic*, *indiscriminate*, and *pseudo* signal the widespread belief that these are “weak” forms or even “false” forms. In *Contextualizing Interdisciplinarity (ID)*, Margaret Boden stipulates that disciplines are taken into account for informative context or background but without active co-operation. In *Composite ID*, when complementary skills are applied to address complex problems or to achieve a shared goal, production of knowledge also retains a strong disciplinary thrust, even when results are integrated within a common framework (1999, 15–16). In the biosciences, for instance, technical knowledge from many fields and expensive instruments are often shared.

When integration and interaction become more substantial and proactive, the line between *Multidisciplinary* and *Interdisciplinary* is crossed. The major actions are *focusing*, *blending*, and *linking*. Scope still differs, though. The degree of integration varies on a spectrum from *Partial* to *Full*, and the relationship of disciplines varies from *Narrow* to *Broad* or *Wide* depending on the compatibility of their methods, paradigms, and epistemologies as well as the number of disciplines involved in any particular field or project. Many believe that interdisciplinarity is also synonymous with collaboration. It is not, and degrees of interaction also vary, from *Shared* interest in a common problem or question to *Co-operative* teamwork. Two further distinctions are also important, between *Methodological* and *Theoretical ID*. The typical motivation in *Methodological forms* is to improve the quality of results, usually through borrowing a method or concept in order to test a hypothesis, to answer a research question, or to help develop a theory. In a typology of interdisciplinary approaches to the social sciences, Raymond Miller (1982) identified two major sources: *Shared Components* (such as research methods of statistical inference) and *Cross-Cutting Organizing Principles* (focal concepts such as “role” and “exchange”). In addition, the roster of examples includes techniques of surveying and interviewing and the conceptual principles of systems theory, information theory, and communication theory. Here too, degree

of integration and interactions differ, from *Auxiliary* to *Supplementary* to more fully interdependent *Structural* relationships.

Theoretical ID entails a more comprehensive general view, conceptual framework or synthesis that is associated with a number of other distinctions as well, including *Transdisciplinarity*. Its *Generalizing* function is not a lower-level encyclopedic embrace but a focused theoretical perspective applied across wide range of disciplines, such as cybernetics or complexity theory. At this level it is not unusual to hear talk of “true” or “genuine” interdisciplinarity. Boden (1999) deemed *Integrated ID* “the only true interdisciplinarity,” achieved when new conceptual categories and methodological unification emerge. Comparably, Lisa Lattuca considers *Conceptual ID* to be a “true or full” form, because core issues and questions lack a compelling disciplinary basis, and a critique of disciplinary understanding is often implied (2001, 117). *Theoretical ID* also illustrates the difference between two fundamental metaphors of interdisciplinarity identified in a report by the Nuffield Foundation (1975)—*Bridge building* and *Restructuring*. Bridge building occurs between complete and firm disciplines. Restructuring detaches parts of several disciplines to form a new coherent whole, illustrated by the search for alternative methodological and conceptual categories within the behavioural science movement and the formation of new fields such as area studies. Miller also identified four categories of new fields and hybrid specializations in his typology: *Topics* (e.g., crime, labor, urban, and environment), *Life Experience* (e.g., ethnic studies and women’s studies), *Hybrids* (e.g., social psychology, political sociology), and *Professional Preparation* (e.g., social work and nursing).

Figure 6.1 contains another important distinction that has become a fault line in the political economy of interdisciplinarity—instrumentality versus critique. The keywords of the new rhetoric in the humanities signalled the evolution of a form of “critical interdisciplinarity” that countered “instrumental” goals aligned with “strategic,” “pragmatic,” and “opportunistic” motivations. Instrumental goals are prominent in economic, technological, and scientific problem solving, especially in science-based areas of international economic competition such as computers, biotechnology, manufacturing, and industry. In this instance, interdisciplinarity serves the needs of the market and national priorities

without regard for questions of epistemology or institutional structure. In contrast, “critical interdisciplinarity” interrogates the existing structure of knowledge and education, raising questions of value and purpose that are silent in instrumental forms lacking reflexivity. Critical forms interrogate disciplines and institutional structures with the aim of transforming them and, in the strongest version of this argument, posit the collapse of disciplines in a “postdisciplinary” transformation in thinking about knowledge and culture.

Bryan Turner (1990) drew a parallel distinction between two trends in the medical curriculum. When interdisciplinarity is conceived as a short-term solution to economic and technological problems, pragmatic questions of reliability, efficiency, and commercial value take centre stage. On the contrary, interdisciplinarity emerged as an epistemological goal within social medicine and the sociology of health. Researchers focused on the complex causality of illness and disease, factoring in psychological, social, and ethical factors within a holistic biosocial or biopsychosocial model that were missing from the hierarchical biomedical model. The distinction between instrumental and critical forms is not absolute. Research and education on problems of the environment and health often combine critique and problem solving. The objects of critique in critical interdisciplinarity also vary. The most prominent targets have been the absorptive tendency noted in the *MLA Forum* and the prioritizing of research funding for strategic problem solving. Mark Kann’s typology of forms of interdisciplinary explanation captures the conflicting positions. Conservative elites want to solve social and economic problems, without concern for epistemological questions. Liberal academics demand accommodation but maintain a base in the existing structure, in the middle ground of harmonious interaction. Radical dissidents challenge the existing structure of knowledge, demanding that interdisciplinarity respond to the needs and problems of oppressed and marginalized groups in order to achieve greater equality (1979, 197–98).

Ultimately, W.J.T. Mitchell argues, everything depends on what sort of interdisciplinarity is being practised. Mitchell distinguished three major types that have been prominent in the humanities:

- (1) *top-down*: comparative, structural formations that aim to know an overarching system or conceptual totality within which all disciplines are related;
- (2) *bottom-up*: a compulsive and compulsory interdisciplinarity that is dictated by a specific problem or event;
- (3) *inside-out*: the indisciplined or anarchist moment, a site of convergence and turbulence. (1995, 541)

The top-down model hearkens back to a Kantian architectonic of learning, in a pyramidal or corporate organization of knowledge production capable of regulating flows of information from one part of the structure to another. It appears in philosophy and in critical theory, in claims for a utopian convergence of theory and practice and in the promotion of semiotics as a universal metalanguage for studying culture. Mitchell's bottom-up model emerges "on the shop floor," in response to emergencies and opportunities. Cultural studies is a general form of the bottom-up model. The inside-out form is aligned with the "indiscipline" of breakage or rupture. It disturbs continuity and practice, though ruptures can become routinized, as the rapid transformation of deconstruction into an institutionalized method of interpretation demonstrated. The "anarchist" moment, Mitchell maintains, may well be the most important event. It is the moment when routine or ritual is reasserted (1995, 541). Comparably, Salter and Hearn (1996) highlight interdisciplinarity's role as the "churn in the system," and Gunn argues that the result of much of interdisciplinary study, if not its ostensible purpose, is "to dispute and disorder conventional understandings of relations between such things as origin and terminus, center and periphery, focus and margin, inside and outside." Ultimately, interdisciplinarity is a double-sided question. Relational studies of the conjunctive kind proceed from the question of what disciplines have to do with each other. "Genuine" interdisciplinarity, Gunn maintains, alters the constitutive question that generates interdisciplinary inquiry in the first place, asking how insights and methods of another field or structure can remodel understanding of what literature is, for instance, and the ways literary conceptions and approaches remodel allied fields and subject materials. Ethical criticism and American studies exemplify this aim too. The radical project exposes the political nature of

the distinction, with the aim of transforming not only academic structure but the larger structure of social articulation (1992a, 241–43, 249; 1992b, 187–88, 193–97; see also Klein 1996, 173–208).

All terminology embodies principles of continuity or discontinuity, and even continuing terms assume new meanings in new applications (McKeon 1971, 50). Transdisciplinarity is a compelling case. Graff, in his essay in this volume, associates the term with the “evangelical chapel of transdisciplinarity,” aligning it with a particular vision advanced at the First World Congress and subsequent charter by the Centre International de Recherches et Études Transdisciplinaire (CIRET). The term, though, has a complex history, and its recent heightened importance is a significant benchmark of new ways of thinking about interdisciplinarity. The term is traced conventionally to the OECD typology, where it connoted a set of common axioms that transcend the narrow scope of disciplinary world views through an overarching synthesis such as anthropology conceived as a comprehensive science of humans (OECD 1972, 26). Characteristic of the time, the prominent conceptual vocabularies were general systems theory, structuralism, and cybernetics. The term had limited circulation at first but proliferated in the closing decades of the century. It now appears as a descriptor of broad fields and synoptic disciplines, a team-based holistic approach to health care, a general ethos, and a comprehensive integrative curriculum design. At present, there are four major trend lines of definition.

The first trend line is an extension of the original connotation. Miller defined transdisciplinarity as conceptual frameworks that transcend the narrow scope of disciplinary world views. Holistic in intent, they propose to reorganize the structure of knowledge (1982, 21). General systems theory, structuralism, semiotics, Marxism, feminism, ecology, sociobiology, and cultural theory have been leading examples. The assertion of new transcendent paradigms led to criticism, even when their proponents opposed the totalizing intent of grand narratives. Yet, Kellner advises, lumping all grand narratives together ignores the diversity of theoretical narratives that operate in culture and in the name of interdisciplinarity. Kellner contrasts Lyotard’s generalized critique of “master narratives” that attempt to subsume every particular viewpoint into one totalizing theory—such as science, liberal humanism, some versions of Marxism,

or feminism—with “grand narratives” that attempt to tell a particular Big Story—such as the rise of capitalism, patriarchy, or the colonial subject. Within grand narratives, metanarratives that tell a story about the foundation of knowledge can also be distinguished from macro social theory that attempts to conceptualize and to interpret a complex diversity of phenomena. Synchronic narratives that tell a story about a given society at a given point in history are further distinct from diachronic narratives that analyze historical change, accounting for discontinuities and ruptures (1988, 252–53).

More recently, a parallel development has appeared in the emergence of transdisciplinary team science in broad areas such as cancer research, where shared conceptual and methodological frameworks not only integrate but transcend their respective disciplinary perspectives. This emergence of transdisciplinary team science embodies Patricia Rosenfield’s (1992) notion of a “transcendent interdisciplinary research” that fosters systematic theoretical frameworks for analyzing social, economic, political, environmental, and institutional factors in human health and well-being. Team members representing different fields work together over extended periods, and their collaborations are fostering new forms of collaborative research, methodologies, training programs, and career development outcomes legitimated by efforts to institutionalize the concept in the US National Cancer Institute. Collaborations of this kind, though, are more difficult to achieve and sustain owing to their greater complexity and aspirations for transcendent, supra-disciplinary integrations (Stokols et al. 2008).

A second trend line appears in the contemporary version of the ancient quest for systematic integration of knowledge. This quest spans ancient Greek philosophy, the medieval Christian *summa*, the Enlightenment ambition of universal reason, Transcendentalism, Umberto Eco’s speculation on a perfect language, the Unity of Science movement, the search for unification theories in physics, and E.O. Wilson’s theory of consilience. Reviewing the history of this particular terministic screen, philosopher Joseph Kockelmans (1979) found that it has tended to centre on educational and philosophical dimensions of sciences. In contrast to the past, however, the search for unity today does not follow automatically from a pre-given, presupposed order of things. It must be continually “brought

about” through critical, philosophical, and supra-scientific reflection. It also accepts plurality and diversity. This value is prominent in CIRET, where a new universality of thought and type of education is being developed informed by the world view of complexity in science. This form of transdisciplinary vision replaces reduction with a new principle of relativity that is transcultural, transnational, and encompasses ethics, spirituality, and creativity (<http://perso.club-internet.fr/nicol/ciret>).

A third trend line is apparent in the transgressive operations of critical interdisciplinarity. In the 1990s, “transdisciplinarity” began appearing more often as a label for knowledge formations imbued with a critical imperative. Michael Peters associated the term with creating new theoretical paradigms, questions, and knowledge that cannot be taken up within the boundaries of existing disciplines (1999, xn3). Ronald Schleifer (2002) linked “the new interdisciplinarity” with theory and transdisciplinary or cultural study of large social and intellectual formations that have breached canons of wholeness and the simplicity of the Kantian architecture of knowledge and art. The transdisciplinary operation of cultural studies, Kellner noted, draws on a range of fields to theorize the complexity and contradictions of media/culture/communications. It moves from text to contexts, pushing boundaries of class, gender, race, ethnicity, and other identities (1995, 27–28). In women’s and gender studies, Dölling and Hark aligned transdisciplinarity with critical evaluation of terms, concepts, and methods that transgress disciplinary boundaries (2000, 1196–97). And, in Canadian studies, Jill Vickers (1997) aligned the transgressive connotative of critical interdisciplinarity with “trans-” and “anti-disciplinarity” with movements that rejected disciplinarity in whole or in part while raising questions of socio-political justice.

Some fields, Vickers elaborated, were problem-driven. Environmental studies is an oft-cited example. Others were part of broad societal movement for change, including the women’s movement and the Quebec and First Nations’ movements for self-determination. Asserting “anti-disciplinary” positions, they tend to use materials in ways dictated by their own transdisciplinary theories, cultural traditions, and lived experience. A greater number of graduate students now have interdisciplinarity undergraduate degrees and experience in inter- or transdisciplinary fields or a combination of interdisciplines (such as art, history, political

economy) mixed with transdisciplinary fields (such as women's or Native/Aboriginal studies). Two forces are apparent: an "integrative" tendency, evident in Canadian studies as area studies, and a self-asserting "disintegrating tendency" that draws the focus away from the centre of existing knowledge systems, evident in critical, oppositional, or self-studies. In transdisciplinary or anti-disciplinary movements, Vickers adds, students may reject epistemological claims of disciplines altogether, preferring alternative understandings of "knowledge" and "evidence" that incorporate notions of "non-disciplinary knowledge" embedded in everyday life, including traditional Aboriginal knowledges and emergent knowledges motivated by critical social movements. Both Angus and Lorraine Code have called attention to the latter in their contributions to this volume.

A fourth trend line has become prominent in Europe and North-South partnerships. The core premise is that problems in the lifeworld need to frame research questions and practice in new trans-sector collaboration, not problems in the disciplines. The growing prominence of problem-focused interdisciplinarity was signalled in 1982 by a distinction that appears in figure 6.1. Based on a conference and recent reports, the OECD declared that *Exogenous Interdisciplinarity* now has priority over *Endogenous University* that originates within science. The *Exogenous* originates in "real problems of the community" and the demand that universities perform their pragmatic social mission (OECD 1982, 130). The trend was further evident in the late 1980s and early 1990s in German and Swiss contexts of environmental research that involved the participation of stakeholders in society. By 2000, at a major international conference on transdisciplinarity, case studies were reported in all fields of human interaction with natural systems and technical innovations as well as the development context (Klein et al. 2001).

Not all problems are the same, however, underscoring the importance of comparative study of terministic screens. Transdisciplinary collaborations between academic researchers and members of the private sector for the purpose of product development promote very different goals than projects focused on democratic solutions to social, environmental, and political problems. Both, though, are being advanced today under the label of transdisciplinarity. The escalation of this keyword signals a new phase in the history of the keyword "interdisciplinarity." Framed

historically by ancient warrants of unity and universality, the underlying concept evolved over the course of a century to serve multiple purposes, pluralizing the discourse and introducing new thematics of critique, complexity, collaboration, and problem solving. The rhetorical boundary work of terministic screens continues to create, legitimate, maintain, challenge, and reformulate meaning and practice (Klein 2009).

NOTE

- 1 Richard Marsden, aphorism no. 26, from “Aphorisms on Disciplines,” paper presented at “The Scope of Interdisciplinarity.” http://cis.athabascau.ca/conferences/archive/docs/richard_marsden.pdf.

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Integrating Interdisciplinary Studies Across the Humanities and Social Sciences

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What is interdisciplinarity, and what is the best way of doing it? There are many ways of approaching these questions. This essay will start from some suggested differences in how interdisciplinarity is (and should be) pursued in the humanities as opposed to the social sciences. It will be argued that these differences are exaggerated. In the best interdisciplinary tradition we will instead suggest that these allegedly conflicting visions can be integrated in order to generate a more holistic understanding of interdisciplinarity.

The first and longest section of the essay focuses upon history, a field that spans the humanities and social sciences. Apollonian and Dionysian approaches to the study of history are developed and integrated. The arguments made regarding how these can be integrated can generally be applied far beyond the confines of historical research. Later sections address, in turn: a distinction between philosophical and scientific interdisciplinarity; a distinction between grand theory and integrating theories; a similar distinction between grand method and integrating methods; a focus on flexible concepts versus stable concepts; and revolutionary versus normal science.

TWO APPROACHES TO THE STUDY OF HISTORY

Two broadly distinct approaches to the study of history can be identified. These might be distinguished in terms of a “social science” versus a “humanities” perspective. Yet such appellations would not only legitimate this distinction but would suggest that it is immutable (though the distinction between social sciences and humanities is itself weakening). It is better to borrow from many fields the appellations Apollonian and Dionysian, drawn from ancient Greek mythology, to describe these two approaches.¹ The Apollonian approach emphasizes order, while the Dionysian approach emphasizes freedom. History, like civilization in general, should not choose one of these but strive for the best balance between order and freedom. Needless to say, the core precepts of each approach must be defined as central tendencies: few historians may agree entirely with either list. Importantly, this observation suggests that these approaches are not monolithic but can be altered.

The Apollonian discourse can be identified by the following precepts:

- Historians should specify the phenomena they are investigating, how these influence each other, and the particular data, theories, and methods used in the investigation.
- The community of historians should strive to compare the results of investigations across historical cases: individual historians need not always be explicitly comparative, though they should be aware of how the arguments they make have fared in other circumstances.
- Comparisons should be made foremost in terms of the causes (or results) of certain historical processes (though comparisons at the level of theory and method may also be valuable).
- Formal and often quantitative methods are thus preferred.

In the Dionysian perspective:

- It is important to study the meaning individuals attach to the events and processes in which they participate.

- Reality is “created” linguistically. And language is inherently ambiguous, both in historical sources and in the work of historians.
- Style of presentation is important.
- Historical events and processes are unique and complex. Comparison across historical cases is thus likely impractical.
- Likewise, theoretical generalizations will only be made possible by ignoring much that is central to historical processes.

These two approaches can be adjusted so as to become complementary. With respect to the Apollonian discourse, the key adjustment involves relaxing methodological and theoretical preferences: any careful theoretical argument and any scholarly method should be seen as legitimate.² It will thus be useful in what follows to argue that comparative research does not presume a particular theoretical or methodological preference. A second adjustment to the Apollonian perspective involves equal flexibility with regard to the meaning of “cause”: any sort of influence of one phenomenon or agent on another should be accepted.

The Dionysian interest in “interpretivist” theories and methods is no challenge to complementarity as long as this is not an exclusive interest. Nor is the postmodern concern with ambiguity of language, so long as extreme versions of this critique are avoided that suggest that different scholarly communities are simply unable to comprehend each other. If language ambiguity is taken as a challenge, then scholars are guided to seek strategies for enhancing clarity. Style must in such an approach be considered as subsidiary to content.

Some elements of a “combined” view of the historical enterprise deserve emphasis both here and in what follows:

- Historians should be open to exploring all causal links and employing all types of theory, method, and data.
- In order for comparative work to be facilitated, historians should strive toward a common vocabulary of phenomena, data, theories, and methods.
- While this “combined” approach does not arbitrarily prohibit

valuable forms of historical research, it is not so broad as to embrace everything: it clearly rejects works that are unclear about the phenomena, causal arguments, theory, and method employed.

Clarity

Clarity is often especially elusive in studies of culture (and not just in historical scholarship), but this need not be so.³ Arnold (2000) celebrates the fact that historians have often investigated the *mentalité* of a particular time and place but raises two key concerns: that individuals and groups within a society will differ in terms of *mentalité*, and if it is assumed (as is often the case) that the *mentalité* of past societies is totally different from our own then such societies may be unfathomable. Burke suggests that it is best to assume that other cultures differ from our own in some but not all ways, and thus understanding will be possible. Goody is more critical than Arnold, suggesting that the study of *mentalités* reflects intellectual laziness; historians must instead identify particular elements of *mentalité* of causal importance, appreciate that all cultures involve internal contradictions, and recognize that cultures evolve. Mahoney and Rueuschemeyer (2003, 23) concur that culture can play an important explanatory role, but that unless causal relationships are carefully specified these arguments are hard to evaluate. Alternatively, Daunton argues that since each culture is unique, historians cannot compare one element in isolation.⁴ Yet when he proceeds to describe his own comparative research on censorship he identifies just a few related phenomena (such as literary styles) that he needed to take into account.

Our consideration of clarity has already suggested the importance of the analysis of carefully defined causal links. More generally, the comparative method is only useful if scholars believe in causality (broadly defined), for comparisons show how differences in terms of some phenomena affect outcomes in terms of others.

Labour historians, economic historians, social historians, and cultural historians may all care about how workers viewed the earliest factories. African historians, British historians, and Indian historians may all care about the impact of the British Empire. But they will put different

emphases on these questions, attend different conferences, and publish in different journals. A focus on causal links makes it much clearer when different scholars are talking about the same thing—or not. Economic historians may view the factory favourably because they emphasize its eventual impact on average incomes, while cultural historians bemoan the apparent loss of artisanal independence. They are talking about different links, and an appraisal of the role of the factory in human history should embrace but not confuse these.

Abbott (1994) has worried that any historical event is too complicated to be broken into constituent causal links. To say this is to say that explanation is impossible, for any explanation of a complex event must involve a series of more precise arguments.⁵ These arguments will necessarily be specific to a particular causal link. The causal link approach is thus not only consistent with the study of complex “big picture” events and processes, but essential to this. To be sure, different causal links will interact (as food shortages and elite disharmony interacted in the French Revolution), and the historian must be careful of oversimplification. Part of Abbot’s concern stems from a fear that theory-driven historians will ignore the importance of particular personalities. It is thus crucial that the community of historians embrace phenomena, theories, and methods at both the individual (personality dimensions, abilities, mental schemas) and societal level.

Skepticism of the very possibility of comparison across historical cases generally rests on at least one of two misconceptions. The first is that historians should search for recurring patterns in history. It is quite unlikely that similar realizations of a large number of phenomena will be observed across quite distinct historical episodes. In this simple sense, history rarely if ever repeats itself. Scholars can, though, reasonably expect to observe a particular realization of any one phenomenon across a wide array of historical cases (say, a shortage of food, defined by some criterion). They can then ask what effects this is observed to have on another phenomenon (say the stability of government). Here, the second objection may be that alternative outcomes will depend on the realizations of a host of other phenomena. This conjecture should be established empirically rather than assumed. More importantly, this objection simply means that the rules scholars seek will be complex: food shortages encourage

revolutions, but only in concert with certain (combinations of) realizations of other phenomena. The common but mistaken belief that “causal arguments” must involve an “If A then always B” (that is, a “covering law”) statement has understandably discouraged the use of causal arguments in historical research. Since comparisons across a handful of cases cannot be expected to identify every relevant realization of other phenomena, it is important that the community of historians compare across as wide a range of cases as possible. Nevertheless, individual historians can usefully compare across a small number of cases with which they are very familiar; as long as they are clear in their arguments and definitions, their research can feed into yet broader comparisons.

Lloyd (1993, 7) is critical of “a humanistic form of inquiry into social life that is akin to artistic or literary interpretation.” He accepts, however, the basic insight of this approach: that historians must grapple with the “meaning” attached to events and circumstances by actors, and that those different actors may perceive the same situation in different ways. He objects only to a conclusion often drawn from these precepts that explanation is impossible. Rather, he sees interpretation and explanation as complementary. By attempting to understand how actors perceived events, scholars can try to explain why they acted as they did. Whether a scholar pursues interpretation or explanation will depend on which type of causal link they study: scholars will often want to pursue both within one study.

Like many others, Burke (in Pallares-Burke, 2002, 146–47) celebrates the breadth of modern historical research but worries about fragmentation, and urges the profession to find some way to tie the pieces together. Gilderhus (2002, 126–27) worries not just about the “cacophony of voices” but about the fact that history no longer serves to unify knowledge; he sees no resolution to this problem. An emphasis on causal links establishes that each historical subfield has a place, but also that historians should study the links between these: in other words, do interdisciplinary history.⁶ And this is critical for comparative purposes: as noted above, the history of an event or process involves the interaction of many causal links and will thus be misunderstood if the set of links any historian embraces is needlessly truncated. While a particular comparative study may necessarily focus on a subset of relevant links, it should ideally both

be performed in cognizance of the existence of others and written clearly so that it can be incorporated into further research.

Is History Inherently Idiographic?

Since the dawn of the past century philosophers have distinguished two types of scholarly effort: a nomothetic approach that seeks generalizations and an idiographic approach focused upon particularities. Historians, it is argued, must delve into details that are unique to a particular time and place, and are thus inherently idiographic. As has been seen, this need not and should not limit generalization. Even the traditional explanation of historical events in terms of the personality of kings, which must seem entirely idiographic given the uniqueness of each individual, can lend itself to comparisons and generalizations: about the role of particular personality types in history, or about how environment shapes personality.⁷

In fact, the stark dichotomy often drawn between idiographic and nomothetic research is itself a chimera. All scholarly activities necessarily mix the two, though the relative balance varies across fields. Moreover, one can imagine a continuum between nomothetic and idiographic argument, depending on how carefully the realizations of each relevant phenomenon need to be specified in a causal argument (Szostak 2004, chap. 3). Different historical works will occupy different points along this continuum.

Must History Be About Artificial Entities?

Ankersmit (2001) argues that historians need concepts such as “labour movement” to make sense of history, but “labour movement” is not a real thing “out there.” However, while “labour movement” is indeed an artificial construct, this essay references several of the hundreds of real phenomena “out there” which could and should be the focus of historical narratives and comparisons. Historians should be urged to eschew artificial concepts in favour of the study of causal links between real phenomena.

Ankersmit also raises a philosophical question: What changes in history, since all change presupposes an immutable subject of change? His answer is that reality cannot change but only human representations of it. Thus historians can only seek multiple representations of an unchanging

reality. This conclusion is critiqued below. A superior answer to the original question can be provided here. The phenomena to be studied are immutable, but historians study the changes in realizations of these phenomena. Economic output is an immutable phenomenon, but the actual output of a society changes through time.⁸

These two related arguments flow in turn from Ankersmit's emphasis on the use of metaphor. Only by increasing the range of metaphor used to describe a particular period, Ankersmit argues, can historians arrive at a more nuanced appreciation of that period. The reality of the fifteenth century does not change, but historical understanding of whether to view the century as one of continuity or change does, if historians move from thinking of it as "late Middle Ages" to "early Renaissance." This essay suggests instead that historians should investigate each causal link in turn, finding change here and continuity there, and understanding in detail *how and why* realizations of various phenomena changed (or did not) over the period of the fifteenth century. In this way, historians are guided (among other things) to define the essence of "the Middle Ages" or "the Renaissance" in terms of realizations of particular phenomena, and to understand why each transformation occurred as it did.

Exploring All Types of Causation

Phenomena can exert influences of many different types on other phenomena. Sometimes a particular realization of one phenomenon may be necessary for a particular realization of another to occur (as in functionalist arguments that a state needs an army or army-like body). Sometimes one realization may be sufficient for another, or both necessary and sufficient, though history is generally more complicated than this. Note that a relationship that is necessary or sufficient in one society might prove otherwise in a different society (especially if the first society sets an example that others follow). In other cases, the effect may be positive or negative, but neither necessary nor sufficient. In still other cases the outcome may be probabilistic. When a family (system) of related links is studied, feedback may be positive or negative or unpredictable. Historians should be aware that causation occurs in different ways and that different theories and methods are best suited to different types of causation.

Likewise, comparative historians can and should appreciate that a realization of a particular phenomenon can have quite different effects depending on the time frame studied. Technological innovation was a fairly imperceptible part of human life for most of the pre-Industrial Revolution period. Yet arguably it nevertheless supported a slow though irregular increase in average incomes and thus affected possibilities for urbanization, the pursuit of art, and a range of other developments. Notably, only historical research can trace these longer-term effects (and only if historians do not overspecialize by period). Sadly, there is a “tendency for scholars to be very casual about time in both quantitative and qualitative analyses”; scholars fail to carefully specify the time that elapses between cause and effect, and often thus provide inappropriate evidence for the sort of temporal behaviour they appear to posit (Jensen 1997, 56). Comparative research can usefully identify and seek to explain differences in the amount of time a particular process takes to unfold in different places.

To what extent are historical processes contingent, such that what happens tomorrow depends on what happens today? Some degree of contingency is inevitable, at least in the short run. Even in the long run it may well be that the innovations of today constrain the paths of future innovation. However, many neoclassical economists would argue that in the long run societies would eventually achieve the most efficient technology or institutions. Early Marxists also envisioned inevitable historical processes. Only empirical analysis of disparate cases can settle the question of how important path dependence is.

If a scholar posits an inevitable outcome, they will seek a very generalizable theory. If a scholar is dealing with a highly contingent historical process, then they will seek a theory(s) that pays careful attention to the conditions necessary for certain causal chains to operate. Since both are possible, it would be a mistake to assume one type of theory at the outset (but not to test one against the other). Social scientists are often guilty of assuming generalizability and/or inevitability, while humanists are often guilty of the opposite. Comparative historians should eschew both extremes.

Narrative Styles

Hayden White famously argued that narrative introduces an element of fiction into historical accounts, and proceeded to identify a handful of key narrative styles (romantic, tragic, and so on) that characterize historical writing. Munslow (1997) has urged historians to be reflective of the limitations imposed by the narrative style they use. Ginzburg (1999) argues that the research that historians perform before they write puts strong limits on the narrative they can present. In urging historians to be explicit about causal arguments, this essay further limits narrative bias. Moreover, by emphasizing both links and comparisons, it reminds historians that every historical story overlaps with thousands of others. Elements of tragedy, romance, and comedy commingle in history. Historians should be discouraged from constraining any historical episode to fit one narrative genre.

Summing Up

The approach suggested here can be embraced by historians across the methodological divide that characterizes the profession. This essay attacks the false dichotomies identified by Lloyd (1993): that history should be distinct from human science (or exactly like it), that historians should focus only on individuals (or alternatively on societal aggregates), that historians should focus exclusively on explaining events (or drawing generalizations), that historians should only pursue “understanding” as opposed to “explanation,” and that historians should emphasize change (or stability). This essay also disdains arguments for the superiority of any one theory or method. It has argued that historians should indeed test theories, but not exclusively. And it has argued that comparative and case-specific researches are complementary. Indeed, the only distinction that remains important in distinguishing good from bad history is that between historians who are clear about what they are doing and those who are not.

Interdisciplinarity in the humanities often lacks the problem/issue focus of interdisciplinary research in the social sciences. Interdisciplinary researchers may integrate across social sciences in order to address urban poverty, cultural transformation, or the causes of crime. Humanists are much more likely to focus on theory. This section will look at philosophical theory; the next section looks at scientific theory. Ironically, the philosophical theories championed by many humanists suggest that the sort of grand scientific theories championed by other humanists are misguided. We can again suggest a common ground between seemingly opposed views.⁹ Postmodern (and related) concerns should not divert us from the pursuit of scholarly understanding but should make us keenly aware of the biases and errors that afflict scholarly (and especially disciplinary) research. Humanists do an important service in reminding us of these biases and errors, but these warnings should not stop them any more than they stop social scientists from trying to understand better how the world operates.

I have elsewhere (Szostak 2007a) suggested how interdisciplinarity can best integrate “modernist” and “postmodernist” perspectives. Importantly, such an exercise forces interdisciplinary researchers to confront epistemological issues rarely addressed in the practically oriented literature on interdisciplinarity. Across a wide range of epistemological (and meta-physical) and practical issues, interdisciplinary researchers need only to step back from the more pessimistic versions of postmodernist thought in order for the interdisciplinary project to be not only salvaged but enhanced. This essay thus backs away from such extremes in order to embrace instead “affirmative postmodernism” (see Rosenau 1992), which argues that human understanding is neither perfect nor impossible, and thus that it is important to perform scholarly research as clearly and openly as possible. Thus, the efforts of social science interdisciplinary researchers, as well as of those humanists pursuing scientific generalizations, need not be viewed as distinct from humanist speculations on the possibilities of scholarship but rather informed in important ways by these.

It is useful for the present exercise to reprise the “interdisciplinary positions” identified in that essay:

- Proof, and even disproof, is impossible. Nevertheless, supporting argument and evidence can be compiled such that one statement is reasonably judged more credible than another (though interdisciplinarians can and do disagree about criteria for judging credibility).
- Science/scholarship is neither perfect nor impossible. Particular types of argument and evidence are especially valuable in enhancing scholarly confidence in a particular conclusion; scholars may achieve consensus. Bias is inevitable but strategies exist for combating this.
- As with disciplines, it is possible to integrate across perspectives rooted in social divisions such as gender and ethnicity. These are not incommensurate.
- There is an external reality, though humans are limited in their abilities to accurately and precisely perceive this.
- The world is characterized by open systems (closed systems are not causally related to other phenomena). Nevertheless, it is possible to identify regularities, although (generally) not laws.
- Most/all phenomena are causally connected with most/all others. Interdisciplinarians nevertheless believe that it is possible to identify (albeit imperfectly) distinct phenomena and causal regularities, though the latter will likely be influenced by realizations of many other phenomena. Causality does not threaten human free will.
- The world is indeed complex and uncertain, but imperfect scholarly understanding is nevertheless possible.
- Language is ambiguous, but ambiguity can be lessened. Integration is a powerful means of doing so.
- Different communities are characterized by overarching perspectives that influence what is said and thought. While barriers to communication exist, these are surmountable to a considerable extent.
- Texts are created within communities of scholars, and thus scholars reflect a perspective of which they are likely imperfectly aware. Nevertheless, texts reflect the views of this situated agent.

- Different scholarly communities develop incomplete and biased perspectives on reality. Yet these can be integrated into a more holistic and less biased (meta-paradigmatic) perspective. If this is true for every combination of perspectives, then consistency can be sought at the level of the scholarly enterprise as a whole. Yet this will occur not in the form of some grand theory (or theories) but in the form of a complementary set of theories each shedding light on different aspects of reality.
- Interdisciplinary scholars believe that scholarly judgment is possible and indeed that they can critique disciplinary contributions in meaningful ways in order to arrive at holistic understanding. Implicitly, at least, they have doubted that there is one unique standard of judgment.
- There are many methods, each with different strengths and weaknesses.
- Both reason and intuition have a place in both the acquisition and evaluation of scholarly insights.
- Causation runs in both directions between individuals and societal aggregates.
- Understanding advances best through the integration of diverse types of theory.
- Interdisciplinary scholars believe that it is both possible and desirable to integrate across different ethical perspectives.

In sum, then, postmodern skepticism—at least once shorn of the extreme skepticism of some regarding the very possibility of scholarly understanding—can support an interdisciplinary exploration of how the world actually works (and should work). It is quite consistent with the emphasis of interdisciplinary scholars on the limitations of discipline-based analysis. It supports a pluralist outlook: no discipline is perfect but all have something to contribute.

The points made above apply to the humanities just as well as to the social sciences. To be sure, there may be important differences of degree in certain respects: language is more ambiguous in poetry than in engineering designs, and it may be harder to perceive accurately a work of art

than a rock. But once it is accepted that postmodern critiques provide no absolute barrier to enhanced understanding then this pursuit should be engaged as zealously in the humanities as elsewhere. And this is important, for there are important questions that lie primarily within the scope of humanities inquiry.

In literary scholarship, postmodernism has squeezed out attention to the ways in which literature (and art and culture more generally) affects authors, readers, and the societies in which these are situated (and vice versa).¹⁰ The pendulum is hopefully beginning to swing back: these important questions can again be engaged, though with enhanced appreciation of the difficulties scholars face in achieving an accurate understanding. Enhanced understanding here as elsewhere is most likely through the integration of insights from multiple disciplines. Literary theory can be integrated with insights from psychology and sociology. Textual analysis can likewise be integrated with insights from surveys, interviews, observation, and statistical analysis.

GRAND VERSUS INTEGRATED THEORY

Interdisciplinary studies in the humanities often occurs under the banner of some grand theory: Marxian, feminist, psychoanalytic, cultural theory, and so on. The impulse toward grand theory has hardly disappeared in social science (and legions of economists still seem to think that rational choice theory is the only theory), but it has weakened in recent decades as most attempts at the “theory of everything” are perceived to have failed. A few points made (or at least hinted at) above deserve to be repeated here:

- No theory is perfect.¹¹
- Interdisciplinary understanding thus comes from the integration of insights from multiple theories.
- The main goal of scholarship is to identify which theories are of greatest importance along particular causal links (and under different circumstances). That is, we should seek to identify the (overlapping) range of applicability of each theory. Natural scientists are much more devoted to this task than

either social scientists or humanists.

- Communities of scholars organized around a theoretical outlook are likely to emphasize its power rather than its limitations. Disciplines are often guilty of this sin, of course, but interdisciplinary groupings devoted to a particular theory are perhaps even more prone to this.
- This need not be the case. Such a community could recognize that its favoured theory is not perfect. Indeed such an attitude has strategic value. If a community argues (even implicitly) that its theory is powerful everywhere, then evidence that the theory is weak in any circumstance can be interpreted as evidence that the theory is wrong rather than just limited in scope.
- Scholarship advances best when competing theories are compared, contrasted, and synthesized. This cannot occur if a community refuses to recognize the possibility that alternative theories may have merit.
- Rule (1997) worried that a theory-driven research agenda was inferior to an explanation-driven agenda in two key ways. First, all research done in the name of that theory would be lost when the theory went out of vogue. Second, evidence that lies outside of the scope of the theory is simply ignored. I have used the Rule dichotomy myself to show how economists' understanding of the Great Depression (among other things) is weaker than it could be because economists focused almost exclusively on testing macroeconomic theories; they thus ignored profound evidence that the time-path of technological innovation during the interwar period was highly unusual (Szostak 2005). Humanists should avoid this error.

Scholars should not be shy of seeking theoretical generalization. But they should not expect any one theory to have all the answers. A fairly simple change of attitude can thus lead to a more constructive and cumulative interdisciplinary scholarship.

We can briefly relate our discussion here back to our previous discussion of historical scholarship. Some historians make little explicit use of

theory. Others draw on some of the better-known human science theories. Historians have tended to emphasize a few social science theories, such as psychoanalysis or feminist theory, while ignoring others (Gilderhus 2002, chap. 3). Being explicit about theory, and investigating how different theories fare along different causal links, will encourage historians to look for new theories when existing theories prove insufficient. Note that a typology of theory can be invaluable here. Since human science itself favours certain types of theory over others, historians may often need to develop their own theories. Note also that there is little reason to use a variety of theories or methods unless some attempt will be made to integrate these (Smith 1996, 141–42).

Postmodernists warn in particular of the dangers of “meta-narratives.” The approach taken here is consonant with that recommendation. Scholars have been urged to examine each causal link in its own right but to remain conscious that each link is related to other links and influenced by a host of other phenomena. Likewise, scholars should be aware of relevant theories but not assume that a particular link is entirely determined by any theory. Historians are right to be skeptical of the meta-narratives of speculative historians such as Hegel, Marx, or Fukuyama. Yet rejecting these raises the question: What is the purpose of history if the detailed analyses of historians cannot someday be tied into a broader story? (Lemon 2003, 7–13). By emphasizing causal links, and embracing theoretical flexibility, historians can add to a coherent human understanding without embracing the simplifications of speculative history.¹²

GRAND METHOD

What has been said regarding theory can also be said about method. I celebrate the inroads that (non-nihilistic versions of) textual analysis have made in the social sciences in recent decades. Yet it would be just as great an error to treat textual analysis as “the scholarly method” as it is to view experiments or statistical analysis in this way (as far too many psychologists and economists do respectively). The world may indeed be a text, but that does not mean that there is only one way to study it.

Literary scholars, then, should be interdisciplinarians rather than methodological imperialists. They should celebrate the insights that textual analysis can provide across all fields while in turn appreciating that there are other methods that provide useful insights, even into literary studies. As with theories, there is a real danger that a community of scholars organized around a particular method will be unable to perceive its limitations. As an economist I can attest to the sad inability of too many economists to understand an argument not expressed in the form of a mathematical model. I would not wish such a fate on literary studies.

Moreover, different methods turn out to be good at identifying different types of theory. (I have elsewhere [2004] asked the same five questions of methods as of theories and am thus able to show in detail how particular methods will favour particular theory types.) Emphasizing only one method thus necessarily biases scholarly judgment toward certain types of theory.

TRAVELLING VERSUS STABLE CONCEPTS

Bal (2002) celebrates the ambiguity of “travelling” concepts in the humanities. Since concepts mean different things to different groups of scholars, they force novel appreciations as they migrate across communities. As they travel, their meaning and use change, stimulating new thoughts. Bal sees this ambiguity as a major source of creativity in the humanities.

I disagree with Bal, though the difference is likely one of degree. Scholarly understanding comes from clarity, not confusion. Of course, it is useful to appreciate the ambiguity of language (see above) and to interrogate how different people interpret a word. And we have celebrated textual analysis above: careful analysis of texts often exposes hidden meanings. But there is a big difference between facing up to ambiguity and celebrating ambiguity. There is a host of better ways of stimulating our imaginations than simply not understanding what other people are saying. Notably, Bal herself appreciates that concepts to be useful must be “clear, explicit, and defined.” I would argue that we can have the advantages of stimulating new thinking without suffering the disadvantages of excessive ambiguity. My difference with Bal is likely (as is so often the case in interdisciplinary

analysis) a difference in degree rather than of kind. Bal sees both advantages and disadvantages in ambiguity. I am much more conscious of the disadvantages, and thus—while conscious that some degree of ambiguity may not only be inevitable but desirable—suspect that in most cases we should push for greater clarity. There are several strategies for doing so:

- The best concepts are those that refer to one phenomenon or a characteristic of one phenomenon. These can be defined quite precisely within a classification of phenomena. Classification and clarity go together: the act of placing a phenomenon within a classification tells us both what kind of thing it is and what kind of thing it is not. For example, I have defined culture precisely as a particular set of values and behaviours; my classification clearly distinguishes these from politics or art.
- Other useful concepts refer to theories or methods or components thereof. Again, classification is the key to clarity.
- It does not seem extreme to demand that all concepts be defined clearly in terms of what they are and are not, and thus all concepts should be tied to classifications.¹³
- Concepts such as patriarchy or globalization or social capital that refer to some vague combination of phenomena, theoretical arguments, and/or methods, do not enhance scholarly understanding. These need to be broken into component parts that lend themselves to clarity. Only if it can be shown that there is a very tight relationship among components will it be useful to pursue analysis at the level of the overall concept rather than its components. If we wish to combat patriarchy or globalization we need to understand how these operate internally. We cannot just treat them as a black box or assume that they generate every evil in the world.¹⁴
- In particular, note the importance of distinguishing concepts that refer to a particular phenomenon (such as gender) from concepts that refer to a particular realization of that phenomenon (such as the gender relations in a particular society). A statement beginning “Men will. . .” needs to be interrogated to see if its meaning is general or specific.

- Julie Klein raises the issue of “boundary work” elsewhere in this volume.. Of course when communities begin to interact it is invaluable for scholars to work at establishing common understandings so that conversation can proceed. My response was that this is a very time-intensive process, and many interdisciplinary ventures may be stillborn as a result of initial difficulties in communication. It would thus be better if we could achieve a core set of shared understandings across the academy of at least the phenomena we study and the theories and methods we use, and then each community carefully ground its core concepts in terms of these.
- Several participants in the symposium suggested that the best path to understanding the varied meanings of a word is to research its history. This can be a useful strategy at times, to be sure. Yet human communication would be a troublesome process indeed if we needed to understand the historical origins of every word we use. Moreover, historical analysis inevitably suggests a variety of meanings. As scholars we need of course to beware that words may carry meanings quite different from those consciously intended. Yet, again, ambiguity need not be celebrated but rather opposed: we can strive to limit the present core meanings of a word to a subset (ideally one) of the meanings it has carried historically.

Humanists and social scientists should each pursue both clarity of terminology and careful statement of argument, because these are simply good scholarly practice. The fact that clarity is a goal to strive for but never perfectly achieve should hardly dissuade us from the task, especially in an age when philosophers recognize that no scientific or ethical statement can be proved. It is likely the case that questions such as “How does art move us?” lend themselves to a poetic treatment (but note that ambiguity of word meanings suits the poet much better than the scholar), but this does not mean that the broad outlines of the argument cannot be stated clearly.¹⁵ Likewise, analogies and metaphors may be more powerful in the humanities than in the social sciences, but good scholarly practice requires that analogies be interrogated for potentially misleading associations.

It is often thought, not without reason, that scholarship in the humanities is more creative than scholarship in the social sciences. The latter at its best can be reproduced, the former perhaps not. As suggested above, the exploration of how poetry moves us may best be served by a more stylish treatment than an explication of how banking regulation affects economic activity. As such, humanists may be attracted to the idea that interdisciplinarity is inherently a creative, even revolutionary act. Social scientists in turn may shun interdisciplinarity if they see it as lacking a shared methodology that allows insights to be built upon through time.

Some have wondered if interdisciplinary research is revolutionary as opposed to normal science (see Szostak 2011). To be sure, scientific revolutions more often than not reflect the integration of insights from multiple fields. Yet to believe that interdisciplinary research is definitionally revolutionary is to suggest that the vast bulk of scholars should attend to specialized research and only the rare creative genius should tackle interdisciplinary research. While interdisciplinary research may well be more creative on average than specialized research, it is critical that it not be (or be perceived to be) necessarily revolutionary.

The challenge, then, is to identify procedures for interdisciplinary research that can guide large numbers of researchers without limiting the creativity of interdisciplinary analysis. Since interdisciplinarity is an antidote to disciplinary biases, it must itself not become narrowly focused. Must structure restrict freedom, or is it possible that “thinking outside the box” can be aided by knowing where the box is?

Interdisciplinary research can be guided by a set of (iterative) steps—some straightforward, others more challenging—that nevertheless encourage researchers to engage the full range of scholarly theory and method. These processes developed by the author and others do not limit creativity within interdisciplinary research. As Repko (2008) has shown—in a path-breaking text on how to perform interdisciplinary research—they are as applicable in the humanities as in the social sciences (or indeed natural sciences).

CONCLUDING REMARKS

We need to be careful about reifying observed practices in the humanities and social sciences. These reflect complex historical processes. The world we see around us need not be the best of all possible worlds. Nor are the differences we observe across the humanities and social sciences inevitable.

Humanists and social scientists have much to learn from each other. Interdisciplinary scholars have much to learn from both. Rather than celebrating observed differences, interdisciplinary scholars should be guided to integrate these. In particular, interdisciplinary scholars should urge all scholars toward clarity, causal analysis, comparative research, theoretical flexibility, methodological flexibility, a constructive recognition of disciplinary and other scholarly biases, and an appreciation of the possibility of a cumulative interdisciplinary scholarship that links all areas of the academy (and beyond).

NOTES

- 1 My first exposure to this distinction involved its application by James Welch IV and others to approaches to interdisciplinarity: see Newell et al. (2003). Nietzsche (1872) had popularized the distinction, arguing that tragedy depended on the integrative tension between the two. He at least implicitly argued that philosophy, and scholarship more generally, would also benefit from both. (It was pointed out to me at the symposium on which the present volume is based that Nietzsche occasionally spoke of a third disposition, in which case the Dionysian became a middle ground.) Benedict (1934) argued that the terms could be used to classify cultures. I am unaware of previous applications of the terms to historical methodology.
- 2 See my *Classifying Science* (2004), which provides both a typology of theory types and a list of the dozen scholarly methods. In both cases their key strengths and weaknesses are outlined.
- 3 The word “clarity” itself is not free from ambiguity. Clarity is defined here as a situation in which the communicator and the audience share a similar enough definition of key terms that they understand one another. Since understanding is never perfect, we must necessarily engage “degrees of clarity.” That is not a problem: the argument here is that scholars should always strive for clarity even if this can never be perfectly achieved. I have described elsewhere (2003) how the scholarly literature on culture is unnecessarily

- vague but in fact involves the investigation of hundreds of distinct causal linkages involving distinct elements of the phenomenon of culture.
- 4 For Burke, Goody, and Daunton, see Pallares-Burke (2002, 154, 20–26, and 164, respectively).
 - 5 Roehner and Syme (2002) follow the strategy of breaking events into component parts and comparing the parts across events using a variety of methods. They argue that this represents a “scientific” approach to history.
 - 6 The argument is thus similar to Burke (2005), who advocates a Braudelien total history that integrates economic, political, social, cultural, and other forces.
 - 7 Notably, the recent phenomenon of micro-narratives, in which historians engage events or processes of local interest, is grounded in a belief that general lessons can be drawn by comparison across such studies.
 - 8 To be sure, a minority of phenomena, such as personality dimensions, cannot be identified without recourse to human science theory. Scholarly understanding of the nature of these may evolve through time. Cumulative historical understanding will still be possible in such instances as long as classifications are clearly specified.
 - 9 Dow (2001, 61–76) makes a compelling argument that postmodernism is the antithesis of modernism and thus will inevitably be transcended by some synthesis of the two. (Jack Amariglio, in commenting on her paper, notes that this desire for a “third way” is widely felt and can be couched in language that eschews the intellectual baggage associated with thesis/antithesis/synthesis.) Dow argues that (skeptical) postmodernism as “anything goes” is unsustainable, for there is then no good reason to bother with scholarly argument; however, it has brought modernist precepts into question such that a return to modernism is impossible.
 - 10 I have argued (2007b, 69–80) that the humanities are best defined in terms of an interest in the causal relations to/from the category of art (which includes literature). History and area studies have a more complex role to play: seeing whether the scholarly understanding of a diversity of causal relationships allows us to understand how different societies both work and change through time. And philosophy operates on a higher plane altogether. Humanists should use the same theories and methods as social scientists, though there will inevitably be differences in emphasis.
 - 11 I have made this point elsewhere (2004) by placing theories within a five-dimensional typology of theory types: theories that excel in one way (as rational choice theory excels with respect to individuals making rational decisions) must necessarily be weak in others (group decisions, attitude formation, and non-rational decisions).
 - 12 As for grand theories that purport to explain many/most/all causal links, a good working hypothesis is that each of these provides more insight into some links than others. For example, Mahoney and Rueusemeyer (2003, 5) speak of major theoretical conflicts between structuralism and culturalism. If culturalist theory aids understanding of how cultural attitudes influence certain decisions, and structuralist theory shows how institutions affect those same decisions, why not integrate these approaches?

- 13 It was noted at the symposium that there are many ‘bad’ classifications that fail to support clarity because they are organized illogically and/or omit important elements (in which case it is not clear if the elements classified are distinct from those not mentioned). I stress that I am making an empirical argument: that an exhaustive and logical classification can support clarity. The argument can only be evaluated in the context of a particular classification. I have elsewhere (2004) developed such classifications of phenomena, theories, and methods.
- 14 Halperin (1997, 71–72) argues that scholars must grapple with six types of relationships between concepts. One of these, “X causes Y,” would be reflected in causal links. A second, “X is part of Y,” is captured by classification. Two more, “X is a characteristic of Y” and “X is an example of Y,” would be important in defining phenomena or characterizing causal links. A fifth, “X is like Y,” might capture certain similarities. Finally, “X is evidence of Y” guides us to distinguish argument from evidence. In all six cases, clarity of the sorts advocated above supports scholarly understanding. See Szostak (2004, 41–45).
- 15 Note that when natural scientists are first studying a “new” phenomenon or process, such as genes or DNA, there is perhaps inevitably a great degree of ambiguity in definition, though this tends to decrease over time.

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PART TWO • PRACTICE

Ecological Thinking as Interdisciplinary Practice *Situation, Silence, and Skepticism*

LORRAINE CODE

ECOLOGICAL THINKING

My purpose here is to propose that an ecologically modelled approach to knowledge opens the way to more productive engagement with diverse kinds and objects of knowledge than the social-conceptual structures that the hegemonic social-epistemic imaginary of mastery and control make available.¹ Ecological thinking is interdisciplinary, albeit in a troubled sense which I will address in the final section of this essay.

Ecological thinking works across and through a range of subject matters and disciplinary territories, often acting as a scavenger in its quest for viable epistemic sources and resources. It requires knowing the detail of place, population, and particularity, and thus requires reading, talking, thinking, studying widely, beyond the artificial boundaries of philosophy. It emerges from and addresses multiple interwoven, sometimes contradictory social-epistemological positionings—feminist, classist, environmental, postcolonial, racist, sexist—with the result that its detail and

implications require multi-faceted chartings. Yet ecological thinking is not simply thinking *about* ecology or *about* “the environment,” although these figure among its concerns. It is a revisioned mode of engagement with knowledge, subjectivity, politics, ethics, science, citizenship, and agency that pervades and reconfigures theory and practice at multiple levels. It does not reduce to a set of rules or methods; it may play out differently from location to location; but it is sufficiently coherent to be interpreted and enacted across widely diverse situations. As I conceive it, ecological thinking can generate responsible remappings of the epistemic and social-political terrains, animated by an attentiveness to diversity and specificity and by a commitment to ideals of citizenship and the preservation of the public trust, all of which concerns are notably absent from putatively universal, a priori theories of knowledge and action. It proposes ways of engaging with the implications of patterns, places, and interconnections of lives and events in and across the human and other-than-human world, in scientific and secular projects of inquiry where the traditional dividing line between the *Naturwissenschaften* (natural sciences) and *Geisteswissenschaften* (human sciences) is blurred, and where epistemic and ethical-political matters are reciprocally informative. To show what these rather grandiose claims involve, in this essay I read Rachel Carson’s epistemic practice as exemplary, in a quasi-literal sense, of ecological thinking at work for her manner of engaging with the detail and wider implications of situation and secular testimony in her investigations of how the once cacophonous North American spring was growing silent; and I show, metaphorically, how a specifically located health care system in Tanzania was reconstructed in ways whose success can be read as a consequence of notably ecological responsiveness to the detail of population and place.

Within this broad conceptual frame, I am interested in how *doing epistemic justice* to people silenced, ignored, or subjugated by received conceptions of knowledge and to places, events, or circumstances that fall outside the purview of what is readily knowable in spectator epistemologies is complicated by patterns of incredulity, ignorance, and mistrust that operate through the discourses of white Western affluent societies. A curious politics of unknowing silently contributes to how people recognize and respond to “difference”: to judgments about whose knowledge

matters or can claim a hearing, whose putative knowledge warrants or fails to claim acknowledgment in intransigent social structures of skepticism and incredulity. It produces a certain epistemic inertia, a resistance to looking beyond the instituted imaginings that hold received views in place.

Philosophically, I call my position *ecological naturalism*, and situate it in the vicinity of W.V.O. Quine's epistemology naturalized and its successors.² Yet I resist Quineans' adherence to a stringently scientific conception of knowledge and methodology, and the "unnaturalness" of their conceptions of "the natural." Quinean naturalism is inhospitable to the social-political critique of institutions of knowledge production which figures centrally in the approach I propose. Thus, working horizontally across the epistemic terrain while evaluating the knowledge-enhancing or knowledge-thwarting specificities of the terrain itself, eschewing practices of viewing evidence through top-down, superimposed theoretical frames, ecological naturalism aims to unsettle the hegemony of dislocated instrumental reason—of "the view from nowhere"—and the instituted epistemic imaginary of mastery and control from which it emerges. Indebted methodologically and ideologically to the science of ecology, to environmentalism, and to the ethical-political impetus that inspired many of the new ecological and other social movements in the second half of the twentieth century, ecological naturalism offers more "natural" accounts of human epistemic practices and their products than formal epistemological analysis or Quinean naturalism can offer: it proposes richer, less reductive possibilities for transformative, emancipatory epistemology.

Looking to the knowledge ecological naturalism requires, my proposal applauds the successes of modern science in explaining and producing ways of "managing" the physical universe, and to the power of empirical inquiry. But it interrogates physical science's hegemony in the academy, the marketplace, and other institutions of knowledge production, and its trickle-down effects into people's daily lives, where it installs monolithic and monologic norms of epistemic practice. Physical science—and technology—are neither the only nor the only reliable forms of knowledge: physics-derived models and methods offer neither definitive nor appropriate exemplars for all scientific inquiry, or for knowledge "in general." Hence, if *science*-derived models or regulative instances of knowledge are

required, ecological science provides more diversified, more “natural” exemplars than those that Quinean naturalists have employed.

Departing from the positivism of Anglo-American philosophy of science (whose traces linger in Quinean naturalism)—in which interchangeable observers leave their subjectivity and agency, interests and enthusiasms, actions and interactions, prejudices and hopes outside the laboratory door, isolating their disinterested epistemic practices from what Bruno Latour (2004) aptly calls “matters of concern”³—ecological naturalism looks to the new (by comparison with physics, chemistry, geology, astronomy) science of ecology. It is politically engaged inquiry, accountable for the knowledge it produces, often explicitly and unabashedly conducting its inquiries in the service of values, commitments, agendas, and political programs that have themselves to be kept open to critical, deliberative evaluation. Ecological naturalism regards scientific and other discipline-specific knowing as continuous with modes of knowing that inform “everyday life” and are integral to developing and sustaining habitats and collectivities conducive to enabling people to live well together. It is contiguous with and makes common cause with some versions of social epistemology, and with many feminist and other post-colonial knowledge projects (see Code 2010).

Ecological naturalism looks to sciences that are operative within and contributors to ecology as they circulate literally (in their scientific modes), and metaphorically (in more secular modes), within the instituted epistemic imaginary. Refusing to separate human knowers from the knowledge they produce or knowledge production from its constitutive practices or from the social-moral-political effects of its circulation, it takes the peculiarities of subjectivity, cognitive agency, and geographical-material-historical-cultural location seriously into account, not as determining, but as often inflecting knowledge and knowing. Thus, I suggest, ecological science affords a more plausible exemplar for knowledge production than cognitive science, to which Quinean naturalists appeal. Its reliance on multiple and diverse field studies where knowers are, by definition, precisely situated as active participants in producing and testing knowledge claims makes it implausible to imagine them isolated from the knowledge they produce, even when they appeal to laboratory-derived experimental evidence for pieces of it. In these and other respects, too,

ecological thinking is continuous with and makes common cause with feminist theories of strong objectivity and situated knowledges.

As I have noted, in characterizing ecological thinking in my 2006 book, I draw on the epistemic practices I find implicit in Rachel Carson's methods of inquiry, working back and forth as she does from field studies to scientific analyses, explanations and experiments, specifically located experiential (anecdotal) evidence, and local (or larger) histories of the sites and species she studies. Self-consciously and proudly, Carson writes both for scientists and for the "general public," in a language that often leaves the rhetoric of "normal science" behind. In consequence, like many practitioners who refuse the confines of disciplinarity, she forfeits a certain professional stature. Yet the result, for those who are prepared to go the distance with her, is to promote a more participatory, democratic epistemology than the uncontaminated purity of the discourses of mastery can allow and to underscore the significance of remaining critically open to multiple and unexpected lines of inquiry. The place she accords to experiential—testimonial—evidence consolidates this claim, while at once exacerbating the tension that pervades her work and enhancing its productive import. I will illustrate my reasons for locating Carson's practice as I do by appealing to an epistemology I find implicit in the case studies and methods operative in her *Silent Spring* (1962).

There, Carson displays ecological thinking at work across diverse modes of knowledge, domains of inquiry, and subject matters: bringing together scientific and experiential evidence to produce conclusions sufficiently particular to address the distinctive character of precisely individuated local phenomena; sufficiently cognizant of wider patterns in nature to generate hypotheses for knowing other, relevantly analogous phenomena; and sufficiently informed and coherent to engage with the agendas of policy makers, the doubts of disbelievers, and the bewilderment of a public caught between "expert" scientific assurances and experiential incongruities. The very complexity of each separate subject matter requires her to be multiply literate and multilingual: to speak the language of laboratory science, wildlife organizations, government agencies, chemical-producing companies, secular nature lovers, and many others; to understand the detail of scientific documents and the force of experiential reports; to work back and forth between variations on the

imagery of mastery and of ecology—sometimes, all for the sake of understanding something so very small as a beetle.

Nor does Carson conduct her research only in controlled observation conditions, although she is guided by and returns to laboratory research from the field where she studies living things in their habitat, studying the habitat itself just as systematically, in its detail and interactions with its inhabitants. In a language that Donna Haraway (1991) has made available, this is situated knowledge, elaborated to show that “situation” is not just a place *from which to know*, as the language of “perspectives” implies, indifferently available to anyone who chooses to stand there. Situation is itself *a place to know* whose intricacies have to be examined for how they “shape” knowing subjects and the objects of knowledge; how they legitimate and/or disqualify knowledge projects; how they are constituted by and constitutive of entrenched social imaginaries, together with the rhetoric that holds them in place. It is an achieved epistemic stance, knowledgeably chosen as a place that can be mapped to facilitate responsible knowing.

Thus the working back and forth in which Carson engages participates, before its time, in challenging many of the dichotomies integral to the history of Western theory and practice, which feminist and other postcolonial epistemologists have also contested. Her work is bound neither by regulative contrasts between intellectual and emotional activity nor between mental and manual labour; it evinces no separation between abstract thought and concrete, sensuous activity, nor between the ideas and practices of “everyday life” and those that derive from formal institutions of knowledge production. But neither does it descend into chaos or arbitrariness. It is no mere casual sampling, no *undisciplined conglomerate*. Carson’s practice exposes such entrenched dichotomies as artificial and coercive, and thus limiting, for knowledge gathering practices. Hence, she lives a pervasive yet productive tension, working back and forth between an instituted, rhetorically monitored scientific orthodoxy and an attentive respect for particularity that is subversive of many of the fundamental assumptions of scientific orthodoxy. In the public and in the scientific imagination, orthodox science is “hard” science, governed, in the going epistemic imaginary, by its allegiance to a deductive-nomological model whose purpose is to deduce monolithic, reliably predictive

laws. The working back and forth that makes Carson's ecological practice possible, together with the contributions her craft and her training as a writer make to her work, moves the tension she lives into an ironic register, for the fact of her directing her work, throughout her life, to a general and not solely to a specialized audience, "softens" it, further unsettling the rhetoric and subverting the aura of esotericism surrounding modern science and orthodox epistemology. (Parenthetically, gesturing toward a topic that falls outside the purview of this essay, there is little doubt that the many gendered attacks on Carson's work and on her person had their source, at least partially, in this perceived subversiveness. See, for example, Lytle 2007; Smith 2001.)

Ecological naturalism amounts neither to an a priori inquiry nor to an explicitly normative project, in the orthodox rule-following sense. It begins in and deliberates about situations and practices; its recommendations are empirically-experientially informed, and self-confessedly fallible. These recommendations evince a certain pragmatism, albeit in an eclectic, secular sense which claims no precise allegiance to any specific pragmatist philosopher(s). In its manner of working back and forth between theory and practice, according to each a constitutive yet critical place in inquiry; in its tacit yet persistent commitment to addressing and intervening in perceived social-environmental-institutional wrongs—its concern with evaluating and transforming the situations where inquiry takes place—ecological thinking claims a place alongside the praxis of some of the leading American pragmatists. Ecological thinking often works by analogy from example to example, case to case, reaffirming a wariness of reductionism and premature closure, opening new deliberative spaces for epistemic negotiation. It may appear to limit the range of justifiable, definitive knowledge claims, yet it maintains vigilance for irresponsible, careless, too-swift knowings that fail to do justice to their objects of study. It fosters a productive ideal of responsibility, rooted neither in individualism nor in an implausible voluntarism, yet attentive to the climatic conditions—both human and other-than-human—in which much scientific and other research in the twenty-first century takes place. It could more aptly be categorized as *extra*-disciplinary than as *inter*disciplinary in not being confined within disciplinary boundaries, seeking its

sources in events, experiences, circumstances: in the media, in literature, and in everyday lives.

Some might have difficulty imagining how ecological thinking could translate into wider issues of citizenship and politics, but the answer, at once simple and profound, is that ecological thinking is about imagining, crafting, articulating, endeavouring to enact principles of optimally viable cohabitation. Because it is so finely tuned an approach, it has the potential in its micro-practices to capture detail and nuance that slip through larger, discipline-specific evidence-sifting grids and precast templates, and thus to achieve linkages from location to location that could begin to close a gap that has held theories of knowledge and action at a distance from the experiences and practices they have sought to explicate. In its macro-practices, it engages critically with the widespread implications of discourses and practices of mastery, and constructively with the transformative potential of ecological reconfigurations. Ecology, literally (as in Carson's practice), looks to state-of-the-art ecological science for some of the substance of its deliberations; yet it assumes neither that science has a direct line to "the truth" nor that it merits uncontested licence to intervene where it pleases. Ecology, metaphorically (as in the example I will now recount), draws situated inquiries together, maps their interrelations, consonances and contrasts, their mutually sustaining or impoverishing consequences, from a commitment to generating a creatively interrogative, instituting social imaginary to denaturalize the imaginary of mastery that has represented itself as "the only natural way" of being and knowing. Thus it is not a single, hard-edged *discipline*, but a practice that enlists a range of disciplinary and extra-disciplinary expertise and wisdom.

SITUATION, SILENCE, AND SKEPTICISM

In this section I offer a reading of a situation in which ecological thinking contributes to thinking well about circumstances under which local informants had been consigned to silence and their testimony discounted, denied acknowledgment as knowledgeable in a climate of pervasive,

stereotype-derived skepticism. (For a more complete analysis of the following example, see Code 2008.)

In the 1990s in Tanzania, for a per-capita annual cost of less than the price of a cup of coffee in North America, a Canadian IDRC (International Development Research Centre)-funded project was instrumental in turning an entire health system around, moving it from ossified methods of gathering, evaluating, and circulating knowledge and tired old administrative practices and distributions of epistemic power and authority, toward a responsive, responsible, democratic complex of social-natural epistemic interactions. The reversal that came about moves from a top-down epistemology of mastery—where knowledge also belongs to “the masters”—to what amounts to an extended enactment of ecological thinking, marked by a learned sensitivity to issues of local habitus and ethos and a redistribution of cognitive authority across a diverse geographic and epistemic terrain. Each stage required painstaking epistemic negotiations with intransigent bureaucratic administrations and efficiency-driven multinational funding agencies, en route to advocating reconfigured ways of knowing and acting, and working toward repairing lacunae in a received, intransigent, hermeneutical repertoire. Here I will sketch the project’s epistemic and moral-political trajectory.

Post-independence Tanzania from the late 1960s to the mid-1980s, under Julius Nyerere, had boasted an impressive health care system, based on a “unique social contract.” Citizens had—allegedly voluntarily—relocated to modern villages to become the beneficiaries of government programs which, for each village, provided a school, pumped water, access to a health clinic and teachers, health workers, drugs, and other medical supplies. Yet despite its striking initial successes, by the early 1990s the system was disintegrating. Among the central reasons for its disintegration, according to the World Bank’s 1993 Report, were the international debt crisis of the 1980s, the unresponsive inefficiency of the central management, and a consequent deterioration in village infrastructures. Hence, Tanzanians endured a health crisis for most of a generation even as HIV/AIDS was sweeping across the country and recurrent infectious diseases were “brutally rearrang[ing] the social landscape.” Nor did new funding, administered centrally from Dar es Salaam, succeed

in providing a solution. The IDRC's *Fixing Health Systems* report exposes an entrenched and regulative epidemiological theory, based on statistically driven central planning and implemented from afar, as a major contributor to the health care system's decrepit state (see de Savigny et al. 2008). The putative knowledge that informs this theory, and the epistemic injustices it produces, are the focus of my interest here.

The renewed success story that unfolds from the Tanzanian case is as epistemological as it is economic. Starting from a system in crisis, the IDRC moved to unsettle the entrenched power of conventional wisdom and its practitioners in ways that are ecological in their responsiveness to the detail of place and demography and naturalized in a quintessentially down-on-the-ground fashion. Yet the very fact of the project's success can have the effect of masking the part played by the intricate epistemic negotiations and advocacy without which it could not have come about. Hence my aim is to make these processes visible.

Despite my contention that more money was not the solution, the reversal that came about did continue to require increased monetary investments in health care, but its astonishingly simple recommendation was that such investments should be based on evidence that would target the local "burden of disease . . . in a particular ecosystem." (The remark recalls Rachel Carson: "It is impossible to understand man without understanding his environment and the forces that have molded him physically and environmentally.")⁴ In short, administering aid from on high, without such ecological understanding, was a principal source of the crisis. Established epistemic practice, in its relentless quasi-automatic repetition and rarely contested hegemony, had installed a screen of unknowing and of not needing to know otherwise, between health care administrators and local practitioners, pathologies, and places.⁵ Hence, radically new ways of knowing local circumstances, sensitive to the detail of their specificity, were required. These included understanding the peculiarities of and interconnections among diseases, and learning how to hear, interpret, and act upon evidence from testimonial sources commonly not accorded authoritative voice as informants under the Western eyes of development agencies and their centralized bureaucracies. (Thus, in *Epistemic Injustice: Power and the Ethics of Knowing*, Miranda Fricker notes that testimonial injustice can be "pre-emptive" when potential

interlocutors are ignored in situations where their testimony is not solicited; hence a “speaker is silenced by the identity prejudice that undermines her credibility in advance” [2007, 130].)

In calling the outcome a reversal, I am suggesting that it was not only about acquiring more knowledge but about working to move past an outmoded yet entrenched instituted epistemic imaginary, in which fixed ways of presuming to know relations of identity and power had created a situation in which members of the local population were unable to dissent from distorted understandings of their experiences and circumstances. One-size-fits-all aid distribution practices had been in place in Tanzania before the IDRC study began: practices that amounted to treating the population merely as a source of information, to be viewed through a Western lens, and hence failing to engage with them as informants “in their own right,” so to speak.⁶ Funds were paid into the central administrative structures, working from an unquestioned assumption that appropriate local allocations would follow as a matter of course. But here, precisely, was the problem. “Appropriateness” turned out in practice to mean dispatching equal sums of money and identical packages of drugs to each district, without taking the steps necessary to respond knowledgeably to the local specificity of populations and health issues, which varied markedly across this vast country. People worked from a presumption of human sameness, and of the reliability of bureaucratic knowledge as a source of information, oblivious of any need to engage directly with people who knew their own situations and the obstacles they faced, yet who had no access to the discourse table, no status as knowledgeable testifiers.⁷

Practically speaking, all local clinics received precisely the same drugs, regardless of whether the district’s patterns of disease and death showed that those were the ones required there to maintain health and reduce mortality. Hence, for example, disproportionate amounts were spent “on comparably insignificant diseases, while the big killers were getting only a tiny slice of the funds” (Nolen 2005, A1, A10). (Peter Nkulila, a clinical officer on the new District Health Management Team comments: “We did things blindly.”) Thus, ignorance of the “fit” between local causes of mortality and resource allocations saw non-malarious highland areas receiving a full complement of anti-malarial drugs more suited to an endemic area. Elsewhere in the country, a 1996 IDRC study initiated before the

AIDS crisis had begun to sweep through the country found that drugs for malaria, responsible for 30 percent of life-years lost, were receiving 5 percent of the district's budget; and childhood diseases such as diarrhea, pneumonia, and malnutrition, responsible for 28 percent of deaths, were receiving 13 percent; but tuberculosis, at only 4 percent of the burden of disease, was being allocated 22 percent of the funds. People were sick and dying, and health care workers, who found themselves unable to offer appropriate treatment, were demoralized.

The IDRC's innovative proposal, surprising in its simplicity, was to study separate localities in their particularity, to see whether, in this one country, epidemiological detail varied sufficiently from one district to another to tell against a one-size-fits-all epistemic approach. This ecological move toward determining the "burden of disease . . . in a particular ecosystem" selected two large and markedly contrasting rural districts as test sites: Rufiji, with a mostly dry, flat interior and a tidal delta on its coastline, and Morogoro, which is mountainous and lush. Mapping diseases as they manifest similarly and differently across these geographically diverse regions was the first step toward "correlating health spending with the burden of disease." Yet, maintaining an impressive—and indeed rare—level of local sensitivity, and reserving judgment, the investigators' aim was not simply to "apply" locally achieved knowledge to other localities, but to work by analogy from district to district, testing conclusions reached in one region for their adaptability to other districts, "given the appropriate local statistical inputs" (de Savigny et al. 2008, 8, 14).

Strikingly, the proposed new "mapping model" is touted as "evidence-based," although in its implementation it diverges sharply from the evidence-based medicine (EBM) that has generated debate in the United States and elsewhere. Standard textbooks praise EBM for its positivity, for eschewing such ineluctably "subjective" practices as interpretation and narrative: the very practices on which, in my view, so much responsible knowing relies. (See, for example, Goodman 2003; Sackett et al. 2000). But Tanzania had neither the statistical tools nor the scientific approach at its disposal to do the evidence-based investigations orthodox EBM requires: nor could it rely on the random control trials (RCTs) integral to it. Moreover, even if Tanzanians had had access to such assumptions and tools, it is not clear that interpretation-free analysis could have succeeded

in filling the hermeneutical lacunae to which much of the crisis can be attributed. For a start, because 80 percent of Tanzanian deaths occur at home, they frequently fail to make their way into official documents or to appear in other reports. Thus it made no sense to rely exclusively or even primarily on clinical records to provide the evidence the new knowledge-gathering approach required in documenting the “burden of disease”; yet without that evidence the project could not achieve its goals. So there were procedural and methodological problems.

In short, a statistically based model imported and administered from elsewhere, and a knowledge base accorded timeless, placeless credibility, but whose local pertinence was neither monitored nor contested, had been superimposed upon people and circumstances for whom/which such knowledge was, at best, minimally informative. It is not that they were simply wrong; nor is it a matter of correcting isolated errors, but rather of determining how outworn templates could be displaced to make room for ecosystem-specific evidence and ecologically responsive practices. The questions are as political and ethical as they are epistemological: the power/knowledge inequalities that structure such interactions between NGOs and their beneficiaries reinforce the “screen of unknowing” I have mentioned, preventing NGO personnel from seeing—indeed, excusing their not-seeing—what their would-be beneficiaries need, in circumstances where their *voices* were rarely accorded the “standing in the discourse” owed to presumptively reliable informants. In consequence, what might look like plain instrumental irrationality amounts, rather, to a stereotype-generated refusal to acknowledge the cognitive authority of the disadvantaged: to a systemic failure of uptake.⁸ Working toward a solution required engaging with local villagers and clinicians, starting from the assumption that they were credible informants. It required listening well, in sensitive, respectful evidence-gathering negotiations whose deliverances may have been less objectively “accurate” by first-world standards than statistical analysis is imagined to be yet were capable of withstanding sustained epistemic and practical-political scrutiny. The IDRC report confirms that “when communities are directly involved in identifying and solving their own problems . . . [their] members become a powerful force in programs of social improvement.”

As an exercise in naturalized-social epistemology, with the pride of place it accords to testimony, the IDRC's new method was ingenious. After a death had occurred in a household, trained local researchers travelled by bicycle to conduct "verbal autopsies" with the survivors. A guiding principle in the endeavour was that the researchers had to be mindful of the sensitivity that interviewing bereaved families requires. Thus the autopsies might take several hours to complete and might require repeated visits with the family and other members of the community. Yet their meticulous, respectful laboriousness is the source of their capacity to avoid or erase epistemic injustice. Such thorough interviews—rich in context and detail—can minimize the likelihood of misdiagnosis. Once the autopsies were gathered, findings were reviewed by three independent physicians who produced an epidemiological picture by feeding the conclusions into a computer according to a "standardized international format." Although the investigators admit that they rely on "fairly accurate guesses," which is exactly what EBM aims to avoid, subsequent analysis confirms that, in aggregate, verbal autopsies provide a markedly reliable picture of disease within the general population. Increasingly, such demographic surveillance systems (DSSs) are used in Tanzania and elsewhere, not just to compile health information, but to monitor poverty levels, education, food security, and the environment.

Still, a further intransigent obstacle in the power/knowledge complex these reversals and consequent "successes" encountered was an entrenched reliance on stereotypes embedded in the Western colonial- and postcolonial-instituted social imaginary—stereotypes notoriously resistant to counter-evidence, through which administrators and other outsiders had presumed to know local populations. Negotiating past such resilient "webs of belief," with their thinly veiled racist-colonialist tenor, was challenging. Before the DSS was established, "planning was being driven by . . . donor agencies' agendas, bureaucratic inertia, and simple guesswork, not as a response to the burden of disease or with respect for . . . reasons behind sufferers' decisions." It was informed and shaped with tacit adherence to conventional (outsider) wisdom according to which death rates in Rufiji and Morogoro attested to Tanzanians' "stubborn preference for traditional healers over modern health care," although there can be no doubt that "stubborn" is neither a morally nor a politically neutral term or

that it is, at the very least, epistemically suspect. This assumption was reinforced by a further piece of conventional (= administrative) wisdom according to which even more “enlightened” Tanzanians, who seek modern care for fever and malaria, persisted in associating the convulsions of late-stage, life-threatening malarial fever—known as *degedege*—with evil spirits and/or changes in weather, but not with malaria itself. To counter what they were thus casting as naïve innocence, administrators expended untold efforts, imperialistically and insensitively, in working to undermine local faith in traditional care, thereby compounding an already-virulent mix of epistemic injustice, animated by colonial contempt, at work in the established policy. Yet such injustice derived from practices of observing the local population from a distance, as standard spectator epistemologies tend to do (= treating them in aggregate as a source of information), and drawing conclusions from actions arbitrarily selected to confirm a prejudice-infused hypothesis established and kept alive by a long colonial history of attributing naïve innocence or irrationality to indigenous, putatively pre-scientific people. It combines with the injustices enacted in established practices of failing to—deeming it unnecessary to—work with, consult with, listen to, or engage with the indigenous population in their potential capacity as reliable informants. The epistemological reversal I have named gradually began to turn many of these practices and assumptions around.

The DSS presents a different portrait of the burden of disease. Studying all known deaths—in households, health facilities, and elsewhere—yields results that contest the intelligibility and highlight the epistemic and moral presumptuousness of these egregious and largely unwarranted assaults on traditional healing. Testimonial evidence shows that Tanzanians who sought modern health care before death in fact greatly outnumbered those who did not; thus, it vindicates the skepticism many of the researchers had voiced about placing epistemic reliance only on clinical attendance and government-compiled cause-of-death statistics as the knowledge base of health planning. When researchers begin to learn from local informants that patterns of death point more frequently to problems of access to health care facilities and (often unavoidable) delay in responding to requests for treatment, or from the sheer inability of modern facilities to prevent some patients from dying, the emphasis shifts to trying to understand local circumstances and practices in and

where they are, and to work toward providing accessible medical care, responsive to local ecosystem specificity.

Centralized distribution practices whose knowledge base and governing demographic assumptions derived from a distanced approach had relied on “applying” information from above indiscriminately, without thinking to determine its relevance to the specificities of population and place. They had also—and this is a separate, if connected, point—sought to improve population health by treating diseases individually, separately, one at a time. From a Western medical point of view, both practices tend to count as perfectly normal: hence their intransigence to contestation and innovation. Yet the IDRC team also contested the viability of these ways of approaching the situation, which were regaining momentum as money again began to flow into international disease-control programs. Standard practice in Tanzanian clinics had been to see children in “factory line” processes where quick diagnostic assessment and rapid prescription of drugs were often based on a (not unreasonable) guess, perhaps that the problem was diarrhea. Yet a radically different proposal, derived from the IDRC’s research, suggests that symptoms may well be caused by several diseases at once, or that one condition may masquerade as another. Based on these hypotheses, an integrated “syndromic” approach was initiated that would address the whole child, identifying and treating a range of possible common illnesses rather than focusing on diseases singly and separately. The results have been impressive. Again, my point is not that people working from the old approach had insufficient knowledge, but that their regulative assumptions about how a place and its inhabitants should be known, how diseases should be known, derive from belief-habits that subtly perpetuate stereotypes and epistemic injustices, which are more and other than mere failures to know. Under these sedimented assumptions, epistemic inertia had prompted practitioners to resist undertaking the down-on-the-ground investigations that began to expose injustices enacted on the basis of fixed assumptions, and to prepare the way for a reversal. The case, as I read it, offers an exemplary illustration of ecological thinking at work.

INTERDISCIPLINARITY

I have suggested that ecological thinking is interdisciplinary, if in a troubled sense. I am referring both to practices of thinking and working ecologically, and to interdisciplinarity as such, if it can be characterized as a single or singular practice. In the Tanzanian example and in my discussion of Carson's knowledge-gathering practices, I have shown that multiple lines of inquiry and sources of knowledge work together to yield such conclusions as these disparate endeavours can permit. Both of these knowledge projects thus require reading across and through multiple disciplinary lines and reading away from established disciplinary territoriality to acknowledge the epistemic significance of secular testimony and of other experiential evidence, across a range of—often unorthodox—sources, situations, and subjectivities. Both require listening past and away from established practices in institutional inquiry and established sites of credibility and accreditation. Both, at their best, are characterized by a mix of circumspection, thoughtful practice, and commitment to epistemic responsibility (see Code 1987) and by resistance to premature closure. Both eschew the model of the monolithic, self-sufficient knower whose monologic, spectator-derived assertions are the stuff of which traditional knowledge claims are made. Thus both transgress the boundaries of traditional epistemic orthodoxy, much as Carson transgresses and subverts the boundaries of orthodox scientific inquiry. But the question is, does this characterization amount to a declaration of interdisciplinarity?

My own work over the past twenty or more years in feminist epistemology and the ethics-politics of knowledge has been marked by a realization that the graduate seminar I teach can no longer legitimately be called "Feminist Critiques of Epistemology," for feminism itself has evolved into a thoroughly mixed category that cannot stand apart from other forms of oppression, exclusion, and counter-hegemonic discourse, practices, and inquiries; nor does feminist inquiry count as a "discipline" except perhaps in Ian Hacking's sense of requiring discipline for its enactment. Hence, I now call the course "Feminist and Post-Colonial Critiques of Epistemology," and the "post-colonial" label in the title remains an intentionally contested term. Feminist scholarship and practice now incorporates and addresses multiple modalities of marginalization, both together

and separately. Nor, once epistemology is socialized and naturalized, as much feminist epistemology is (and mine included), can epistemology “itself” proceed as a unified or an a priori normative theory, committed to setting out formal conditions for making and adjudicating knowledge claims in abstraction from particular events, disciplines, subject matters, and ethical-political urgencies. Unlike orthodox analytic epistemologists, feminist epistemologists rarely work with speculative analyses of “possible worlds,” nor do they concentrate on developing strategies for countering the skeptic or deriving formal, necessary and sufficient conditions for the existence of “knowledge in general.” The very idea of “knowledge in general” carries little meaning in feminist analyses, for such knowledge, if it were a meaningful concept, would have to transcend all specific conditions and subjectivities to yield the “view from nowhere” most feminists eschew as an illusory goal. Feminist inquiry, and thus feminist epistemology, often works down on the ground in the messier regions where knowledge claims are derived, negotiated, contested, and lived; and guidelines develop and redevelop in practice and in communal deliberative projects. There, an analogue of Aristotelian virtue ethics and epistemology often plays a regulative part; there, it may be easier to determine what kinds of knowing will *not* contribute well to achieving a just measure of intelligibility than what the universally right ones are. From this point of view, neither ecological thinking nor the questions I raise in my other books remain within the confines of disciplinary orthodoxy. But are these inquiries interdisciplinary? The answer, I think, is to some extent yes, and to some extent no.

On the yes side, these inquiries are interdisciplinary in the sense that they challenge the disciplinary self-presentation of philosophy in its aloofness from the specificities of human lives and situations, to study those specificities *in situ*, in diverse locations and in ways that draw on empirical observation and patterns of analysis more fitting to disciplines as diverse as literary analysis, anthropology, social science, and so-called “natural” science. In that sense, and thinking also of “subversive” charges levelled against Rachel Carson, these inquiries cross the artificial boundaries of fixed modes of inquiry both in the academy and in the “real” world. My earlier reference to the range of and variety of knowledge Carson requires, even for the sake of understanding something so small as a beetle, affirms

this point. Indeed, the very fact of such borrowings across artificial disciplinary boundaries underscores the extent to which such boundaries are themselves arbitrary, conventional, and porous. So although they are often zealously guarded and indeed policed—as in insistent challenges to the effect that the work feminist or anti-racist philosophers are doing “is not really philosophy”—such challenges also, if haltingly, may destabilize the boundaries to the extent that closed disciplinary structures begin to shift, in the process.

On the no side, I see this work less as explicitly interdisciplinary than as a mode of research and thinking that enlists the resources of a philosophical training that spans the so-called “analytic/continental” divide. It thereby enables me to turn my attention, sometimes analytically, sometimes phenomenologically, sometimes drawing eclectically on other extra-philosophical resources, to a range of problems and puzzles about knowledge, subjectivity, intelligibility, and the politics of epistemic location, as these play out in specific lives and circumstances, and illumine other analogous questions and issues.

NOTES

- 1 In the first sections of this essay I draw extensively on arguments set forth in greater detail in Code 2006.
- 2 See, for example, W.V.O. Quine, “Epistemology Naturalized” and “Natural Kinds,” in Quine 1969. Both essays are reprinted in Kornblith 1994.
- 3 Latour asks: “When will we be able not to reduce matters of concern . . . to matters of fact?” (2004, 51).
- 4 Quoted in Lear 1977, 219. The comment is from a speech Carson delivered at the National Book Award ceremonies, 29 January 1952 (Rachel Carson Papers, Yale University Collection of American Literature, Beinecke Rare Book and Manuscript Library, Yale University, New Haven, CT).
- 5 As Dr. Harun Machibya, the Morogoro District medical officer, recalled: “Before TEHIP [Tanzania Essential Health Interventions Project] we did not identify and prioritize our interventions. Rather, we implemented plans worked out centrally. Even in budgeting, the tendency was to add some percentages to previous years’ planned and budgeted activities” (de Savigny et al. 2008).
- 6 In making this distinction, I am drawing on Edward Craig’s *Knowledge and the State of Nature* (1990).

- 7 I am borrowing here from Goldensohn 2006, 35.
8 Thanks to Elizabeth Anderson (personal communication) for this way of putting it.

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9

Michael Haneke
*The Spectatorship of Self-ReflEXivity
and the Virtual Gaze in Benny's Video and Caché*

JAN JAGODZINSKI

THE SELF-REFLEXIVE ART OF MICHAEL HANEKE

Anyone who watches a film by Michael Haneke is eventually overwhelmed by a disturbing feeling that is impossible to avoid. His films leave one's nerves unsettled long after they have ended. The effect is profoundly moving, but it is unlike that induced by a horror film; rather, ordinary life takes on a strangeness that cannot be easily articulated. I have chosen to discuss Haneke's filmography as the best illustration, in cinema, of what I call self-refleXivity, written with a capital "X" to distinguish this as a form of machinic assemblage¹ that departs from the naïve modernist notions of mirrored self-reflection and its postmodernist redefinition as self-reflexion, with a lowercase "x," by Giddens, Latour, Foucault, Butler, and others who celebrate a poststructuralist subject of hermeneutical consciousness, a subject of knowledge capable of positioning itself outside

itself as an objectified cultural object of discourse in order to assert a performative resistance to the Symbolic order, a resistance within a sado-masochistic pact that perverts the law cynically, with self-reflexive irony.

In distinction, self-reflexivity with a capital “X” identifies a desiring machine, a new division of labour between humans and machines that attempts to deterritorialize the spectator’s steady voyeuristic consumption of televised and cinematic media through an active engagement, by mobilizing a particular form of time-image (Deleuze 1989) and a neo-realist style that parodies the melodramatic bourgeois form wherein the self-containment of the personal has been stripped away (Peucker 2000). The spectator cannot enter the frame in Haneke’s anti-narratives but rather is forced to view the situation, usually through long camera takes of characters who have been stripped, by and large, of their psychological intentionality. He does not dwell so much on their faces as on partial objects that repeat and make possible the banality of their existence—like hands, feet, and arms that perform the mechanized rituals of everyday existence. Haneke mobilizes the spectator’s fears, desires, and fantasies, through *Verfremdungseffekts* (alienation effects) as evoked by Brecht, Eisenstein, and Walter Benjamin, to achieve a sense of astonishment and shock. Cinematic pleasure seems to turn in on itself in an uncanny way.

Much has been critically written on Haneke’s filmography.² It seems every year a new book has emerged since his “discovery” by American audiences, with seven of his nine television features produced during his early career in the 1970s and 1980s now re-released with English subtitles.³ Hence, I hope that this essay makes a unique contribution in maintaining that self-reflexivity, as defined with an uppercase “X,” changes the question of desire from what cinographic pictures “want,” a question of desire as “lack,” to what they can “do,” a reorientation to a productive notion of (Haneke’s) desire when it comes to unhinging spectatorship within a society of the synopticon.⁴ How might the machinic eye of the cinema as an *event*, “gaze” at the spectator from that unknowable vanishing point that all realism elides, the place of the Lacanian Real now understood as *sinthome*—an irrational void that is indifferent to the Symbolic so as to deliver an ethical import? Throughout Haneke’s filmography, the *vereisung* (chilling) effect of his camera (he calls his first trilogy *Vergleitscherungs-Trilogie*)

carries with it the chill of death by suicide. It is an inhuman gaze, de-anthropomorphized because no one can occupy it. The rays that emanate from that impossible place freeze-frame reality like the long takes that characterize Haneke's auteurship.⁵ *The Seventh Continent* (1989), his first feature film, ends in communal suicide by the mother, father, and daughter. In *Benny's Video* (1992), his next production, there is the effective "death" and breakdown of the family when his parents are arrested as accomplices in Benny's murder of one of his classmates, a young girl. Finally, in *Fragments of Chronology of Chance* (1994), the film ends in a shooting spree by a young university student who then takes his own life.

Haneke's filmography is personally directed against Hollywood cinema and television production in general, disrupting two psychoanalytic subject positions that pervade the representational aesthetic of designer capitalism and its sustaining of the *jouissance* of the audience through the screen culture of structural violence: the sadomasochism of Hollywood film and the sadism of reality television (Haneke 2008; Metelmann 2003). Haneke's filmography attempts to explicitly critique and undo these two subject positions through his mobilization of a particular reflexive machinic assemblage. Haneke, I argue, presents a way out between the standard accepted leftist position in psychoanalytic theory, beginning with Laura Mulvey (1975), in which the ideological effect of spectator fascination (pleasure) offered by mainstream (Hollywood) cinema must be destroyed or at least ruined,⁶ and the more recent view, initially articulated by Slavoj Žižek in various forms and brilliantly elaborated in Todd McGowan's *The Real Gaze* (2007), wherein spectator fascination is encouraged so that the effects of the Real can then be pondered.

Haneke steers a path between these two positions through the mobilization of a particular time-image, wherein the spectator's fascination remains intact through the puzzle that his thought-image presents by withholding the unifying signifier of the narrative. The audience expects a satisfying, completed narrative, but Haneke's anti-narratives thwart such an outcome. This doubles the game that is being played on the screen and in the spectator's head, yet at the same time the punctum effect of the Real is constantly made available through the mimesis of a realistic form and involuntary memory associated with that form—a phenomenon

I call the *virtual Real*, which will be explained below. Following Deleuze (1989), Haneke's films bring "the unconscious mechanisms of thought to consciousness" (160). Thought is brought face to face with its own impossibility—as the unthought; the powerlessness of our thought in contrast with film thought is made evident.

How, then, is this self-reflexivity mobilized so as to be capable of disturbing the accepted frame of spectatorship of television and Hollywood cinema? Haneke has stated that the audience he addresses is precisely the Hollywood crowd who are used to consumptive watching, which situates them most often in a sadomasochistic and sadistic viewing position. It is this viewer he wishes to disturb through his own manipulative neo-realistic style, mobilizing various forms of the time-image of the virtual Real. If we consider the three Lacanian psychic registers—the symbolic, the imaginary, and the Real—it is possible to recognize how Haneke's carefully staged editing, his use of the long take, and his confining of all sound diegetically, following the lead of Robert Bresson, whom he has studied and admires, is able to induce a puzzling uncertainty that cannot be resolved. The narrative, depending on the film, is carried by a movement-image that, by and large, remains distant. Seldom does Haneke include the classic reverse-shot pattern that leads the spectator to identify with the characters. If he does so, it is used with great effect and purpose to alert the audience that something significant is being discussed.⁷ This movement-image that enables the viewer to seamlessly follow a narrative, however, is disrupted by the irrational or non-relational cut—the black screen—so all we are getting is fragments of characters' lives, leaving us with a puzzle as to what is going on. These fragments speak to the contingency of life itself, and hence the time-image that emerges presents us with shards of time, forming a crystal-image (as discussed below) in Deleuzian terms. One of the strong themes that continually emerges in Haneke's films is the continued subversion of the audience's construction of reality, the assumptions and evaluations that are made to rationalize what's going on into a coherent story. A simple example is the telling of the so-called "dog" story in the middle of *Caché* when Anne and Georges are entertaining their friends. During the dinner party, Pierre relates a story about meeting an older woman with a dog, one that involves all sorts of improbable coincidences that seem far-fetched but not impossible. When

all are convinced of this seemingly absurd story, he tells the dinner guests that he was pulling their leg.

This questioning of hermeneutic assurances extends to psychoanalytic analysis as well, since Haneke offers us schizophrenic “unexplainable” behaviour that in some cases ends in suicide.⁸ In his first trilogy, both *Seventh Continent* and *71 Fragments* rely on the irrational cut in which the anti-narrative comes together in both cases with an unexplainable suicide based on actual news stories. In *Seventh Continent* mother, father, and daughter commit suicide after demolishing their entire home and flushing all their savings down a toilet. Haneke gives us glimpses over a three-year period of their routinized existence and their inability to communicate with one another despite a life of commodified luxurious living. As spectators, we revisit the utter ordinariness and boredom of their lives, over and over, as these revisitations become memories for us, vivifying a nihilistic existence where everything has been drained of desire, even any hopes for their elementary school daughter, who is clearly disturbed. The implosion of the bourgeois upper-middle-class family indicates the inability to reach outside their walls—neither to their siblings, nor to their aging parents. In *71 Fragments*, a university student appears unable to live up to the demands imposed by exams, by his coach’s expectations of him as a table-tennis champion, and by his parents’ expectations, leading to a psychotic break—the desire to be subjectivized by the big Other, to finally be seen and heard.

In *Benny’s Video*, the middle film of the trilogy, Haneke introduces the Deleuzian crystal-image by way of the video as a recording device. The crystal-image forms the cornerstone of Deleuze’s (1989) time-image. This is a shot that fuses the past of a recorded event with its viewing. The crystal-image is the indivisible unity of the virtual image and the actual image. It is subjective, in the past, and recollected. As a “pure recollection” it exists outside of consciousness, in time. It remains in the temporal past, still alive and ready to be “recalled” by an actual image. We might say that it is an engrammatic image of time stored as memory, ready to intervene in actual events when called on. In contrast, the actual image remains objective, in the present and perceived, whereas the crystal-image lives at the limit of an indiscernible actual and virtual image—Deleuze hints that it is in the Lacanian register of the Real. The crystal-image shapes time as

a constant two-way mirror that splits the present into two heterogeneous directions, “one of which is launched towards the future while the other falls into the past.” David Rodowick (1997) maintains that the time-image fluctuates between actual and virtual, recording or dealing with memory, confusing mental and physical time, actual and virtual, and sometimes marked by incommensurable spatial and temporal links between shots. The twist Haneke gives to this formulation is that the machinic ability of video as a recording device enables him to skilfully disrupt the seamless/seamless flow of the actual with the virtual—one might say producing moments when the crystal-image sends out a disruptive shock ray to the viewer, producing a sense of time that is out of joint. In *Benny’s Video* the boundary around the actual image—the diegesis as carried by the narrative—is disrupted by the virtual image that is charged with an ethical indictment. At this imaginary psychic register an *Entfremdungseffekt* (defamiliarization effect) takes place. For at least a moment, there is a “distancing,” an “estrangement” or “defamiliarization.”⁹ The viewer is startled as to what is the actual diegesis when it becomes confused with the virtual video recording. It is the video recording that disturbs our scopical looking, delivering its message in its distancing.¹⁰

In Lacanian terms there is a *méconnaissance*, a misrecognition, of the image, occurring when the symbolic is re-signified with new meaning. This is best exemplified when Benny’s parents, after speaking to him in his bedroom, have discovered that he has killed the girl and are discussing what now should be done about it. The scene is shot from within Benny’s dark room. Only a crack of brightly lit space is seen through the partly open door. This stock image (which hints at the materiality of the cinematic medium as light entering through the door that acts as a shutter to create an image in the darkened chamber of the bedroom) is shown twice as the voices of the parents, primarily the father, discuss what to do and how to dispose of the body. It appears as if Benny is overhearing everything they are saying from his bedroom. The same shot is again seen toward the end of the film, when we hear the same conversation between the parents we heard and saw earlier through the actual diegetic image. The grain of the image has slightly changed and the voices are quieter, but no less distinct. Another *Entfremdungseffekt* takes place as spectators soon come to realize that they are watching another one of Benny’s

videos. This time a voice-over conversation between Benny and a policeman with whom he is viewing the video disturbs our viewing, and now this tape will serve to indict both of his parents as accessories after the fact for the murder that their son has committed.

Haneke, however, leaves us with the gaze of surveillance of the Law in the closing shots of *Benny's Video*, as cold and impersonal multiple images in the police station spread over the monitors of a surveillance system of the parents entering the interrogation room to (supposedly) be questioned in pursuit of a confession. This camera position—the spectator is watching this surveillance in a shot from above, the so-called “God shot”—transfers into the gaze of the Real, evoking its ethical self-reflexive stance as exemplified by his most successful film *Caché*. This gaze, placed in the vanishing point of the neo-realist structure, is marked at the end of *Benny's Video* and produces a *Verfremdungseffekt* (an alienation effect, or shock) at the level of the Real, but it is perhaps not sustained long enough to register on the audience, although by placing it at the closing scene Haneke leaves the audience cold and shuddering, as he so often has in his previous films. There is redemption, but it is ever so slight and ever so fleeting and impossible to tell: has Benny finally “felt” something so that he has to confess from overriding guilt, or was this yet another ploy to “get even” with his parents?

Haneke's film opens with Benny's video documenting the killing of a pig directly in the spectator's view; in the middle sections of the film he gives us the *méconnaissance* of the Imaginary register where the film's narrative is disrupted by the crystal-image of Benny's other videos; finally we come to a camera position—Haneke's own gaze, placed in a nowhere place and space—where both Benny's videos and the images produced by the surveillance cameras are themselves mastered by this impossible Real position, putting into question the Law itself by the spectator occupying its place of (impossible in this case) judgment. It is this camera position that carries the import of an ethic of the Real in terms of the self-reflexive spectator that forms the structure of Haneke's neo-realism, what I call the virtual Real (a gaze that is masterfully explored in *Caché*), this time coming at the end of the film.¹¹ We have been motivated by the film's diegesis to raise the question: Just who then is responsible for Benny's murder? Is it the parents, Benny, the spectacular social order, or perhaps

we viewers who are complicit in its structure? And, if it is all of the above, how are we to disassemble such a structure?

THE GAZE AS VIRTUAL REAL: *CACHÉ*

Caché opens with a three-minute long shot of the Laurent's household. As spectators, we again experience a misrecognition of the Imaginary register as we come to recognize that we are watching a video surveillance tape similar to the one at the end of *Benny's Video*, but with a twist. It comes from an unknowable or impossible place of the Lacanian Real. It does not exist in the diegesis, only as an impossible place of the camera and, of course, with Haneke behind it. In the opening scene Georges (the protagonist) leaves the apartment to look for the place of the possible camera in Rue de Iris, the name an obvious hint by Haneke that no such surveillance camera can be found. It is perhaps also Haneke's way of dispelling the myth, first developed by André Bazin (1971) that the long (unedited sequence) camera take as introduced by Italian neo-realist cinema after World War II somehow exposed the truth of reality (verisimilitude) within its frame—that it gave “ontological weight” to the film's image. Here no “truth” is exposed *in* the frame but *by* the force of the frame, which holds Georges hostage to it through surveillance. The virtual Real of this gaze again carries with it an ethical import since it draws out France's colonial past, notably the incident of 17 October 1961, when the political wing of the main Algerian anticolonial group—the French-based leaders of the FLN (*Front de Libération Nationale*)—having organized a peaceful demonstration in Paris, was savagely repressed by the police under Maurice Papon for violating an 8:30 p.m. curfew that had been imposed on Muslim French Algerians. An undisclosed number of demonstrators (between 50 and 350) were killed and thrown into the Seine.

In *Caché*, Haneke ups his game with the spectator by enabling the self-reflexivity to manifest itself through the suturing of the extra-diegetic gaze of the camera position that finds its way indexically by way of the anonymously sent videotapes and child-like images that arrive at the Laurents' doorstep, forcing viewers to puzzle-solve who is watching them and what they want. All along, Haneke appears to be asking, “What can this film do

through this gaze to unnerve the viewer in relation to Georges's increasing anxiety?" Haneke puts both the viewer and Georges into a societal tableau, placing them in the "picture" of the contemporary Symbolic order that only the gaze can render possible, which is why Georges seems oblivious to the place of such an impossible "hidden" camera in Majid's apartment when he reviews with Anne the videotape that has "captured" his visit to Majid. Unlike his suspicion of the surveillance camera, he has no "suspicion" of the camera that "must" have been inside Majid's apartment that has rendered the videotape that he (with Anne) is viewing. A videotape of his second visit—when Majid commits suicide in front of him—is never seen by him or Anne; rather, it is presented to the viewers, presumably as a recording, from the same impossible position of the gaze.

Spectators viewing the tape of the suicide from the hidden camera position are faced with the way Georges relates to the Algerian Other. The virtual gaze in that room places both Majid and Georges in the tableau of the relations between North African immigrants and the French bourgeoisie who own the culture industry. (Georges is a successful TV host—the character is presumably based on the long-standing Parisian TV literary host Bernard Pivot—and Anne is a successful book publisher.) This indeed is a virtual Real gaze, for it asks of Georges, "What does the Other want?" But it asks the question in a cold, voyeuristic way. This gaze is an "evil eye," as Lacan speaks of it in Seminar XI. It has ethical import, and Georges is unable to "tame" it, screen off its effects. Georges slowly loses his control. His insensitivity to the Other emerges throughout the unfolding of the gaze's haunting. The Other (Majid and his son) want to be subjectivized by Georges (allegorically, France as a nation), but Georges refuses. I call this a "virtual gaze" here, since it already carries the memory of France's colonial past, and hence as a spectre it is a hauntology in Derridean (1994) terms or a *hontology* in Lacanian terms (as explained below). Indeed, this gaze is coveted by the *look* of Majid's son, who (significantly) has no name. His look, capturing the cold power of this gaze, is most evident after Majid's suicide, when his son confronts Georges at work but Georges ducks into an elevator. Haneke films Majid's son staring at Georges over the crowded people in the elevator. As spectators we see the exchange of reactions of both men in the elevator's mirror,

constructed by Haneke in such a way that his camera is not visible, so that it is now carrying the symbolic diegesis.

The virtual hidden gaze in *Caché* that carries with it the *object* as the cause of desire is not revealed until Georges must come clean to Anne as to what happened during his childhood, the incident between Majid and himself. But even here he fails to come to terms with this incident, and Anne (tellingly) dismisses it as frivolous. He has not been shamed into admitting his grievance, unable to relieve his guilt since there is no one to blame. There is no exculpation for Georges. There is no act he can undertake to purge himself of this memory. He knows unconsciously that he committed a grievous error but is unable to come to terms with it because the Other—Majid—will not let him take that subject position. Both Majid and his son insist that they did not send the videotapes and pictures. Initially Majid held no malice toward Georges, despite Georges's provocations. Majid's son also denies sending the tapes, leaving Georges broken—unable to come to grips with his (France's) involvement in the treatment of the strangers in the land. Majid does not accuse Georges outright; rather, he commits suicide as a symbolic overrepresentation of the suicide that the Algerian French have suffered.

Time-Image

Haneke uses the time-image of Bergson's involuntary memory, that is, "unsolicited" independent memories that are disengaged from the immediate action or perception, to draw out a childhood memory of Georges's relationship to Majid, an Algerian boy his parents adopted who was orphaned presumably during the 1961 suppression of the peaceful demonstration. This return of the repressed or unwanted involuntary memory is furthered by the haunting of the virtual Real gaze that invades his bunkered house in the "flower district of Fleur that lies adjacent to Rue de Iris." This virtual Real gaze of Haneke's camera is mobilized quite differently than in *Benny's Video*. It is no longer the Imaginary and Symbolic psychic registers that cause the *méconnaissance* of the actual and virtual, but the unknown gaze—the voyeuristic gaze of the unknown position of the camera that collapses the Real and the Imaginary registers to call on a repressed symbolic memory. However, this is not to show *guilt*, for

Georges cannot be called on for his guilt as a six-year-old for his act of selfishness. Like many single children of that age might do, Georges wanted to get rid of Majid so that he need not share his parental love and attention with him. Rather, it is the *shame* of that incident he is unable to come to grips with, which the ethical Real gaze demands.

Guilt and Shame

It is here that Lacanian psychoanalytic theory can be of some use in explicating the ethical import of the virtual Real of Haneke's camera, especially as developed by Copjec (2006), who explicates Lacan's position in response to the students of May 1968, a moment of equally historic magnitude, that the role of the analyst should end in the production of *shame* in the analysand! The videotapes that Georges receives on three occasions are all wrapped in "childhood" memories; that is, they are childlike drawings in crayon of splattered blood and a decapitated chicken. These images, as well as the childlike writings and the surveillance tape, begin to *affect* Georges. As objects they begin to estrange his Symbolic world. They become overly saturated with associations and recollections to the point that his memory is moved and affected, eventually causing dreams and nightmares. As objects of anxiety these wrapped tapes begin to overstimulate his thought, get him thinking uncontrollably. They become what Freud called *Vorstellungrepräsentanz*, which designates "the signifier's otherness to itself" (Copjec 2006, 95), estranging thought. When Georges's thought begins to unravel, for Lacan (contra Sartre), the gaze of the virtual Real that looks at Georges is *that of his own being*; the sensible cause for Georges's uncanny sense of being observed by another is found in his own surplus-*jouissance*. This *jouissance*, as the object-cause of our desire, singularizes who he is. Georges is uprooted from his sense of mastery over the world by the sense of inescapable anxiety that these drawings and tapes induce. "The confrontation with *jouissance* as the 'origin of [our] own person' confronts a doubled or forked time where who I am in the present converges with who I was in the past" (Copjec 2006, 104). The anxiety of these childhood images and videotapes touches that part of Georges's unrealized past that might have caused his history to have been otherwise. He could have let Majid be his surrogate brother rather than

setting up an incident in which Majid is sent away to an orphanage. In one sense Georges is “riveted” to his French identity, his racial prejudices, and his upper-class intellectual indifference to the plight of Others from which he cannot escape.

To transform his anxiety into guilt, Lacan argues, is a “sham.” The disturbing enigma of Georges’s being, which *jouissance* poses, “vanishes in guilt in favour of a pursuit of knowledge,” such that “certainty is transformed not only into knowledge but also into the relentless pursuit of ever more knowledge” (Copjec 2006, 109). Guilt is a flight from the enigma of Georges’s *jouissance*-being, but not from *jouissance* as such. “The guilt-laden, anxiety-relieved subject still experiences *jouissance*, but this *jouissance* is characterized by Lacan in Seminar XVII as a “sham,” as “counterfeit” (109). It is a “sham” because it gives the false sense that the core of one’s being can be knowable, possessed as an identifiable property. “All of our inherited, unchosen identities—racial, national, ethnic—[that] root us in an actual past that may be lost” now become accessible insofar as we can have knowledge about them and restore an ideal future. Georges is not even able to relieve his anxiety through the “sham” of guilt. He has no desire to take responsibility for his childish envy and make up for his narcissistic act to Majid in the future. What Georges fails to accept is the shame that the act in the past implies, now that he can look back on it with its full implications in relation to Algerian-French relations. In effect, Georges simply repeats the historical racism of his country’s past. Both Majid and his son are arrested by the police and taken in a paddy wagon to be interrogated as to whether they are involved in the harassment of Georges’s family. It is this incident that provokes Majid to commit suicide in front of Georges as a way not only to express his own self-hatred but hatred for Georges as well. Both men, as allegorically representing France and its diaspora, cancel each other out in a death struggle. There are no winners, only losers: this is a “lose-lose” scenario.

Guilt and shame are not alike. With guilt there is an identifiable Other, and the question is whether Georges’s generation can be blamed for the actions of the prefect of the Paris police, Maurice Papon, whose record of public service was marred by a sadistic, racist record of administrative abuse. He was jailed for crimes against humanity and died there.

The symbolism of Majid chopping the head of the *coq* (the symbol of France) is precisely what Georges is unable to live with—the plight of the diaspora within the borders of France. He does not wish to live with the shame of his country’s past racism, unwilling to recognize the full weight of the Algerian conflict for the country’s history. This is a *hontology*, as Lacan put it, a suturing of ontology and shame that his generation *must* come to terms with. Haneke’s attack on the bourgeois intellectual elite’s indifference (their *insouciance*) to the plight of immigrants and the steady stream of horrific news that anaestheticizes their ability to feel compassion, the postemotionality, as Stjepan Meštrovic (1997) has put it, that forces a “walled mentality” of living in their home as a fortress.

The gaze of the impossibly positioned camera is both virtual and ethical; it is virtual since its extra-diegetic position appears in the series of videotapes that are sent to him as surveillance of his home and as clues as to how to find Majid, his long-lost and vanquished Algerian childhood friend. It also accuses Georges of lying to his wife that he did not find Majid, as a videotape arrives from this impossible camera vantage point, which again fools the viewer into assuming that we are watching the narrative. The ethically virtual gaze carries with it the *force* that haunts the French cultured elite, calling upon them to admit to the shame of their past, to face up to their racial atrocities by no longer turning their backs, satiating their guilt through consumerist gratification and reducing family living to a banal existence—as in *Benny’s Video*, where parenting is carried out through *Zettelerziehung* (literally, a “slips of paper upbringing”): Benny’s parents leave him notes telling him what he is to do that day. Shame haunts, while guilt can be purged. Such a gaze is a force at the core of Georges’s being, his object-cause of desire. It has *not* been transformed into the power of a superego. For Georges there is *no* agent that exercises the power over his (presumed) guilt. There is only the exertion—the force of his *jouissance* that is eating at him, and that continues eating at him, *unresolved*, as he goes to bed toward the physical ending of the film after taking two sleeping pills (*caché*), indicating that what is “hidden” will remain unresolved.

The Child Is Watching

The most controversial is the last scene of the virtual gaze as a long take, in which we see Pierrot and Majid's son coming together, exchanging a conversation and going their own separate ways, leaving the entire "thriller" unresolved. It was never a "who done it" but a "no done it." This last scene, again a time-image, can comfortably fit anywhere within the established narrative, conceivably once again enabling spectators to construe any number of scenarios: Were the boys in on it from the start? Do the boys have a homosexual relationship? Does the boys' relationship give us hope for a new era of race relations? As in so many schools where ethnic minorities mix and mingle, the hope exists that a new understanding can emerge. We see that Pierrot and Majid's son talk. What they say and how they exchange is left self-reflexively to the viewer, who has been in the position to puzzle a "thought-image" in the best Deleuzian sense through the mobilization of a virtual Real gaze.

The very evocation of this scene also points once more to Haneke's one hope: the child. He seems to offer an anamorphic perspective regarding school and upbringing of children. As Mecchia (2007) argues, in many respects it is the "wounded" child (as a "child-director") that has the last say in his films. As we saw, in *Benny's Video*, parenting consists of the notes of instructions that Benny's parents leave behind for him to follow because they lead such busy lives—the so-called *Zettelerziehung*. In *Caché*, Pierre goes to a good school, so it is not a question of the quality of institution that the children of the well-off are sent to but rather of parents shirking their responsibility to raise their children to meet the "world" from the lessons they themselves have learnt. Haneke maintains that the bourgeois intellectual elite have shirked their responsibility to take a long hard look at those lessons that they might pass on to their children.

The film's release in 2005 was both prophetic and poignant, as that very month saw race riots by second and third generation decolonized young people of North African and Arab descent in the suburbs of Paris, when Nicolas Sarkozy, then minister of the interior, enflamed the situation by calling them *racaille* (scum or rabble). It may well be critically said (Gilroy 2007) that Haneke, a white European director, does not have the right to represent the postcolonial condition in France. Majid, after all, has the judgment of history on his side, and in the film Georges simply

repeats that history. However, it was precisely a film such as this, one that offers no direct answers but calls up the question of France's shame and guilt, that led to a number of television specials over the buried aspects of the Algerian War, which the French New Wave of filmmakers (1954–1962) could not directly tackle. *Caché* shows what a powerful force the virtual Real for reflexive spectatorship can be.

NOTES

- 1 Machinic assemblage follows the usage in Deleuze and Guattari (1977) as an ordering of the drives (*Triebe*) with, in this case, the cinematic apparatus.
- 2 In the German literature, the following three works present the most thorough reviews of Haneke's filmography: Metelmann (2003); Wessely, Grabner, and Larcher (2008); and Assheuer and Haneke (2008). In English, Brigitte Peucker's *The Material Image: Art and the Real in Film* offers a useful chapter on Haneke (Peucker 2007). See also *After Postmodernism: Austrian Literature Film and in Transition* (Riemer 2000c), in which essays by Peucker, Thomas Nadar, and Willy Riemer, as well as by Haneke himself, discuss his early work. Since the present essay was first written, a comprehensive work on Haneke's films, *A Companion to Michael Haneke*, edited by Roy Grundmann (2010) has appeared.
- 3 All this has been made possible through French and German cultural support. Haneke's filmography and televisual work were featured in a film festival held at the Museum of Modern Art in New York, 3–15 October 2007. The festival—titled Michael Haneke: A Cinema of Provocation—was organized by Joshua Siegel, assistant curator of the Department of Film, and based on an exhibition curated by Roy Grundmann, a professor of film studies at Boston University.
- 4 The synopticon reverses the panoptic machinery of the society of the discipline as developed by Michel Foucault. In a synoptic society, the many voyeuristically watch the few, and the few close the seer/seen circuit through their exhibitionism.
- 5 *Auteurship* seems to be an apt term to use here, since Haneke has gone on record as saying that he considers as artworks only films that he himself scripted, as opposed to those he adapted for film (such as *La Pianiste* [2001], which is based on Elfriede Jelinek's novel *Die Klavierspielerin*).
- 6 An example of such a cinema of "displeasure" was attempted by Lizzie Borden's *Working Girls* (1986), a "neo-realistic" look at a bordello in New York, where the "working girls," all young women with their own hopes and desires, are oppressed by their madam, who is interested only in making money. The sex scenes are shot in such a manner that all voyeurism seems completely dissipated by the banality of the routines and the flaccid phalluses of the regular johns.

- 7 In *Caché* (2005), this happens only once, in an exchange between mother (Anne) and son (Pierrot) over his suspicion that she is having an affair. The scene ends with Pierrot running away from her embrace.
- 8 Some of the best psychoanalytic interpretations are directed at *La Pianiste*, ironically not considered by Haneke to be part of his art but for which he was awarded the prestigious Grand Prize of the Jury at the 2001 Cannes Film Festival. It also received the Best Foreign Film in 2002. In this sense, Jean Wyatt's (2005) study of Erika (played in the film by Isabelle Huppert) is quite brilliantly supplemented by Thakur's (2007) rereading of her analysis to show how Huppert's psychosis is grounded in the music of Haydn. It is interesting to note that no such psychoanalytic explanation can be so cleverly applied to the *Seventh Continent* or to *71 Fragments*. There is danger, however, in always applying psychoanalytic concepts to "explain" or interpret the behaviour of characters about which so little is known, or to use generalized concepts, like the *interdit* to the "primal scene," to explain why Haneke forbids close-ups, for example.
- 9 My point is thus to confine the *Verfremdungseffekts* of shock and alienation to the psychic register of the Real, while the *Entfremdungseffekts*, which produce a distancing or defamiliarization, are better understood at the Imaginary register. Finally, it can be said that the *unheimlich*, or uncanny, aspects emerge in the Symbolic register in the way that the bourgeois home becomes estranged.
- 10 Such an *Entfremdungseffekt* of the image was part of Magritte's repertoire, as iconically illustrated by *Le Viol* [The Rape] (1934).
- 11 After *La Pianiste* (2001), *Caché* (2005) may well be Haneke's best-known film. It won an astounding number of awards, among them: Best Director, the Prize of the Ecumenical Jury, and the "Competition" Prize from the Fédération Internationale de la Presse Cinématographique (FIPRESCI), all three at the 2005 Cannes Film Festival; Best Film, Best Director, Best Editor, and the FIPRESCI Prize at the 2005 European Film Awards; the Valladolid International Film Festival's Fiftieth Anniversary Prize, also in 2005; the Diagonale Grand Prize for Best Feature Film at the 2006 Diagonale Austrian Film Awards; Best Foreign Language Film at the 2006 Film Critics Circle of Australia Awards; Best Screenplay at both the 2006 Étoiles d'Or (in January) and at the Lumière Awards (in February); and Best Film and Best Director at the 2007 Chlotrudis Awards.

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Transdisciplinarity and Journal Publishing

GARY GENOSKO

Interdisciplinary compromises give way in transdisciplinary experimentation to new efforts to creatively grasp hypercomplex objects like the socio-economic effects of new information technologies in an era of planetary computerization. Transdisciplinarity announces the need to assemble methods adequate to the challenges posed by such objects, and in the process devises working relationships across and beyond traditional disciplinary boundaries. Rather than valorizing the spaces between disciplines, which is a form of enforced marginalization or, at best, the occasion to engage with ambivalence (Genosko 1998, 183-86), transdisciplinary thought is not a creature of the middle but undisciplinable to the extent that it organizes itself around the problem of how to build a micro-institution through the creation of a technological infrastructure adequate to its undertakings. Eschewing transcendent or given solutions, for example, in general pedagogies (Genosko 2003a, 135), transdisciplinary activity simultaneously gives shape to institutional microspaces and their interdependent assemblages as they are worked out in pages, meetings, projects, data, and cash flows. Such an institution is actualized through technological matters; typically, such matters are paper artifacts like journals or books, which today are more commonly web-based e-journals and

listservs. Journals have a good deal to teach us about transdisciplinary experimentation.

A journal can be the site in and around which the rituals of a microinstitution are enacted, where standing in the group is established, labour divided, access and control mediated, a public imagined and engaged. Technology is the site of a microinstitution's auto-production and the engendering of certain kinds of subjectivities, geared toward a constrained self-management through continual creation, by a segmented collective, not unlike an editorial board, with designated powers, roles, and responsibilities with varying degrees of stability, and distance from a journal's editorial and production team (the book reviews editor as opposed to the subscriber). The technologies involved in journal production have changed significantly since the 1980s as computerization dematerializes the once collective process based on craft knowledge.

A collectively produced journal engenders microinstitutional substance and is not merely a product managed at arm's length; a microinstitution is the product of a group's quasi-collective self-elaboration. There are provisos contained in the "quasi-" attached to this use of "collective," since while it does valorize the metabolic and affective communion of group life in its privileged haunts, and all the ways that affect is generated, it does not always require this condition because the assemblage is less empirically demanding and replaces the group with the fluidity and relative consistencies of components irreducible to actual persons in one place at one time in face-to-face relations.

Such microinstitutions do not exist apart from self-constituting activities, both failures and successes. They are not somehow products alienated from the group's auto-production. Of course, it is possible to be alienated from the products of one's collective labour if the editor or director is especially difficult; yet this very difficulty provides another kind of traction. Much interesting reflection exists on the failures of transdisciplinary projects, although much of it concerns inadequate integrations (failed wholenesses like splitting of groups, reversion to unidisciplinary methods) and the tendency to view such projects as luxuries "appropriate only in affluent times" (Somerville 2000, 104).

These reflections on collective autoproduction and the formation of

microinstitutions, including well-formed substances and less well-formed activities that leave little or no trace, give to technologies a central role in an interpretive strategy that sees in journal print runs, editorial assemblages, off-centre centres, summer institutes, groups that splinter from professional bodies, and conferences, all of which are resources for the investigation of the processes of transdisciplinary institutionalization. Technology is here a substantially formed intermedium that encodes a microinstitution's legacy and is the site and occasion for passages through its spaces, even if such movements include at both poles cognitive and geographic locations. Perhaps simply because they survive as concrete resources, publications (proceedings, event posters, CFPs, internal communications, notes in personal archives, and interviews with surviving members) are indispensable for thinking about transdisciplinarity in practice.

The question of transdisciplinarity mutually imbricates technology and microinstitutional auto-formation. One of the claims advanced in the "quest of transdisciplinarity" by Armand and Michèle Mattelart (1992) in *Rethinking Media Theory* firmly places the endeavour within a French university space and in relation to a journal under the rubric of the study of mass communication. I want to begin with this example not because it is exemplary, but in order to generate several critical points of view on transdisciplinary practices. I will then turn to a contrasting example of a non-university, and still French, research assemblage created by Félix Guattari in the late 1960s and how it was modified by a changing political and research policy landscape, while still clinging to a vestige of transdisciplinarity after losing its capacity to generate and support its original microinstitution.

Further, I want to report on some of the work I have done on Canadian journals, specifically Arthur and Marilouise Kroker's *Canadian Journal of Political and Social Theory (CJPST)*, and the "Canadian" content, if you will, or better, crossovers from Paul Piccone's political theory journal *Telos*. These two examples will provide more detailed looks into the life of editorial assemblages and the significance of the *Telos* editorial diaspora for the invention of Canadian microspaces of transdisciplinary experimentation.

In *Rethinking Media Theory*, the Mattelarts focus on the foundational work of Georges Friedmann in the creation of the Centre d'études des communications de masse (Centre for the Study of Mass Communications) at the École pratique des hautes études in 1960 and describe his "resolutely transdisciplinary perspective" (Mattelart and Mattelart 1992, 20). An unsigned editorial statement about the founding of the centre, published in 1961 in the first issue of its journal, *Communications*, explains that Friedmann saw the "organic" link between technology and mass culture as the object of the centre, and reflected on the inadequacy of the term "mass communications." Moreover, the centre would not "choose its doctrine in an a priori fashion: we hope that its work will serve to define things and not words" (21). The Mattelarts end the quotation at this point, but if one reads a little further in the editorial note, the role of the journal becomes clear: "and it is precisely to this effort of real elucidation that the Centre will dedicate an annual publication of which this is the first issue" (Editors of *Communications* 1961, 1). The centre and its journal are born through questions about contemporary massification, the socio-semiological effects of which will be worked out in the journal's pages. The journal is characterized by a remarkable modesty, a hesitancy about its objects and methods which makes it impossible "to pretend to an immediate theory of its [contingent] object," and thus it will be shaped by the critical cognizance of the limits and the originality of the task at hand. This is all the more remarkable given the competing master discourses of semiology, wielded by Roland Barthes, and a sociology of the present (whose object would be "events"), by Edgar Morin.

Two points are worth noting. Guattari picks up on this attitudinal positioning in a report that he co-wrote in 1992 for UNESCO on transdisciplinary research: the adoption of a humble attitude in the face of the complexity of the fields under consideration; and a willingness to sacrifice something, that is, to suffer "amputations" or put in "parentheses" the certainties of specialist knowledge and established ways of working (Guattari and Vilar 1992, 9). The centre's very existence is a kind of response, think the Mattelarts, to American-style content analysis popularized by Bernard Berelson in the early 1950s in the nascent area of

communications research, which spread from analysis of text to audio-visual materials, Friedmann's main concern according to one of his colleagues, Violette Morin (Mattelart and Mattelart 1992, 21). One is reminded of similar motivations of differentiation cited by Stuart Hall: behaviourist assumptions (cause and effect) that ignore the character of the televisual sign and the dimensionality of visual messages. These criticisms are thought to be direct rejoinders to the emphasis of "Leicester School" mass communications researchers who treat the communicative process as transparent, misread signification, apolitically analyze the medium, and present an un-nuanced view of the audience (Hall 1994, 261). However, even these kinds of adjustments could not mask the fact that the centre was chained until its reorientation in 1974 to "universal themes," ahistorical questioning, and aneconomic theories—rhetoric, semiology, theories of texts, psychoanalysis, and leisure and consumption—with only an occasional glance at actual changes in communications technologies like cable television and computerization, which the Mattelarts correctly diagnose as an indifference to encoding pragmatics (1992, 23–24).

My question concerns the character of the centre itself. Each issue of *Communications* contains an activities report of the centre, which showed the fragmented yearly results. The positions of participants, other than directors of studies, are rarely noted at this point in the centre's history. The seminars directed by leading figures at the École pratique are listed and described (listing those who lectured in them), research projects, attendance and participation at colloquia, conferences and learned societies, principal publications, media appearances, and so on—in short, a fairly typical academic annual report including all and sundry. This lack of coordination and paper participation beyond the journal itself was eventually manifested in 1972–73 by a change in name to the Centre for Transdisciplinary Studies (announced in 1974 in the twenty-first issue of *Communications*) and the division into three dominant streams according to the interests of the co-directors (Sociologie [Morin], Anthropologie [Friedmann], Sémiologie [Barthes]). So, the move to transdisciplinarity betrayed the transdisciplinary goals of 1960 for the sake of specialist multiplicity. The explanation of the name change outlined three tasks: assemble researchers from varied disciplines; give priority to research that engages multiple methods, languages, and practices; deploy transdisciplinary

work in an attempt to bring to light new objects of research (Editors of *Communications* 1974, 213). From 1973 to 1977, under the tri-directorship of the second incarnation of the centre, as the *École pratique* became the *École des hautes études en sciences sociales*, *Communications* came under the sway of the masters of structuralism (the consanguinity of Todorov, Kristeva, Metz, Genette; following Barthes's self-exile from structure and elevation to the Collège de France). The challenge of the original hyper-complex object, mass communications, receded into the background. The deaths of Friedmann in 1978 and Barthes in 1980 would rob the centre of its early champions. Like many such centres, the animating spirit of its founder would be invoked. "Ah! The remarkable courage of his telephone calls, so full of reasons and resonance, before 8 o'clock in the morning," wrote Violette Morin of Friedmann, the philosopher (1978, 2).

By 1979 the buzzword had become "diversification," but not for its own sake; rather, diversification is not "dispersion" but "the occasion for theoretical and epistemological communications by and for the Centre" (Editors of *Communications* 1979, 211). At the end of the 1970s, the centre's annual reports were partitioned by area of specialist contribution—bio-anthropo-sociology; contemporary sociology; politics; cinema; literary semiology; socio-semiotics of discourse. The streams signified the diversity of undertakings, yet seemed more noun-like than verb-like, and became less and less object-focused and more and more dependent on the journal to hold the intellectual project between its covers, rather than allowing its loose leaves to scatter. At this point all members of the centre are listed by name, position, school, and often role in the case of technicians and administrators.

Transdisciplinarity confronts its institutional substances at every turn. Commonly, it is in the form of a journal that the question of the "working example" is raised, but equally pertinent is the academic "centre" and its institutional dependencies (the Centre for Transdisciplinary Studies would be thoroughly integrated with the Centre national de la recherche scientifique [CNRS], especially as Edgar Morin rose in its ranks), the degree of consensuality at play, personality clashes, funding challenges, real administrative support, and so on. For every director who believes they have to keep their centre—citing Margaret Somerville (2002, 102) with regard to McGill's Centre for Medicine, Ethics and Law—from succumbing

to the devil of dangerousness and/or falling into the deep blue sea of flakiness, there is another director who does not have togetherness as a goal, who chooses dissensus over consensus and can tolerate the proliferation of singularities without a transcendent unity. However, this too can be a kind of terror.

STUDY CENTRE FOR RESEARCH INTO INSTITUTIONAL FORMATION

I now want to turn to a different kind of example in a non-academic setting. The journal is a choice matter formed by editorial assemblages seeking to collectively realize their microinstitutional ambitions in concrete projects and in the process create new worlds of reference, fabricate and share affects in the manner of artists, and summon a readership and participants yet to come. The journal *Recherches* catalyzed the collective self-production of the microinstitution Study Centre for Research into Institutional Formation, *Centre d'études de recherches sur le fonctionnement des institutions* (CERFI), which brought together an incredible array of psychiatrists, architects, town planners, philosophers, film makers, and educators of all stripes and statuses.

CERFI may be described as a freelance research group that managed to solidify a core membership in affective communion around the production of collective objects, primarily funded research projects leading to special topics journal issues. It was created by Guattari in 1967 and replaced the two-year-old predecessor organization that began by publishing *Recherches* at the psychiatric Clinique de La Borde. CERFI also enjoyed a community of experiences through the work of many of its members at La Borde as *stagiaires*, or trainees. Its natural milieu was psychiatry. CERFI was an extra-academic assemblage that was funded by the civil research contracts under the budget of the Ministry of Research. It provided salaries to its members and financed its projects. These were not individual contracts, as François Fourquet recalls, but covered the entire group of twenty core members for four or five years (2007, 2, 4). Eventually it was edged out by professional academic bodies as budgets shrank, governments changed, and research became more university-focused. To put

it bluntly, centres like Friedmann's got the money and CERFI did not. This began to occur around 1975. Eventually, the state's strategy was to integrate or co-opt some of the core CERFI researchers, a move that failed, whereas with the groups at the *École des hautes études* this was very successful in building a stable of preferred applicants.

The lack of funding—the failure of what Anne Querrien called “a ministerial godsend”—became an issue for CERFI and caused internal strife and protective restructuring (1999, 35). Eventually, by the end of the 1970s, CERFI turned its back on the radicals who had prepared its most notorious issue, *Recherches* number 12, “Trois milliards de pervers: Grande encyclopédie des homosexualités” (1973), and the blending of affective and political dimensions imploded (Dosse 2007, 34–35).

In the early 1970s, CERFI legitimated its outsider status through the participation of leading intellectuals in its research groups; thus, Foucault was research director of the *Généalogie de équipements collectives* stream, which resulted in a number of mid-1970s issues of *Recherches* on a variety of topics ranging from architecture, psychiatric hospital planning, safeguarding vernacular languages, and power. This was a period during which CERFI had as its hypercomplex object of study the State, which it approached without constructing a “homogeneous doctrine” (Fourquet 2007, 2). CERFI also collaborated with other independent groups, notably Guy Hocquenghem's FHAR (Front homosexuel d'action révolutionnaire), which opened up pathways for the explorations of its members, and invited other groups to occupy its space. Although Guattari sometimes makes light of his many criminal and other charges (Guattari and Rolnick 2008, 380), he never ceased mentioning the “Three Billion Pervers” issue and his fine of six hundred francs for affronting public decency (Guattari 1996, 192). Indeed, it is an irreplaceable discussion point for anyone interested in the history of CERFI (Mozère 2004).

It was 1973 and CERFI was at its “zenith”—flush with cash, full of the success of *Anti-Oedipus*, published the previous year, flirting with the prospects of communal life in the Parisian suburbs (buying a house and starting a commune), drawing the brightest-burning intellectual stars into its orbit, not merely in its pages but in its living, editorial auto-productions (Dosse 2007, 319–24). Then issue number 12 appeared. By the late 1970s, CERFI had changed fundamentally under a variety of pressures, and

Guattari began to distance himself at the moment when CERFI took off in the direction of professional publishing (developing the “Encres” series of books, re-editing *Trois milliards de pervers*, joining forces with Editions 10/18 to reprint issues of *Recherches* as stand-alone books, abandoning under pressure from new members an older set of radical causes), finally ceding his directorship in 1981 (Dosse 2007, 332–35).

Publishing machines, like all machines, break down yet continue to function in failing to integrate their parts. This is merely one dimension of their process of microinstitutional production. Parts of broken-down machines may be cobbled together to produce wonderful devices, as Rube Goldberg demonstrated in his comic drawings.

It was the institutional task of CERFI to ameliorate its situation by engaging not only the expressive desires of FHAR but also those of the MLF (Mouvement de libération des femmes); in fact, CERFI put at Hocquenghem’s disposal its infrastructural resources and the assistance of Querrien. Overall, CERFI managed to interrupt its state cash flow in the process, but as a flow itself connected with other entities like the FHAR and MLF and GIP (Groupe information prison, in which Foucault was active), from which post-1973 CERFI professional editor and publisher Florence Pétry came, eventually tapped a new energy source through three syntheses: *connecting* with book publishing, and *disjunctively* subdividing into specialty and regional groups (music, film; CERFI Southeast); introducing difference in connective repetitions (the burden of serials publishing) by means of renewal and breakage (learning how to distribute itself and its products); and finally, *conjunctively* extruding a collective subjectivity about which histories may be written: “So *that’s* what it was?” (Deleuze and Guattari 1977, 18).

EDITORIAL ASSEMBLAGES AND CROSS-BORDER ACADEMIC TRAFFIC

My study of Canadian cultural theory in historical and theoretical context focuses on two examples. These are primarily publishing projects with relevance to the development of Canadian intellectual life in the humanities and social sciences, specifically in the broad field of cultural theory,

encompassing critical, postmodern, and transdisciplinary social and political thought. The examples that interest me belong to the 1970s and 1980s: first, the late Paul Piccone's political theory journal *Telos*; second, Arthur Kroker's *Canadian Journal of Political and Social Theory*; and third would be, if space permitted, the first cultural studies magazine in Canada, *Border/lines*, closely associated with the late Ioan Davies.

Even the salutary, but now dated, efforts of draft-dodging sociologist Ray Morrow to analyze the "relative absence of overt obstacles to novel research orientations" for critical social thought in Canada in the 1970s (1985, 715), presupposing university environments and the conservatism of the major presses, leaves only a weak idea of what a Canadian critical theory would look like. I am proposing something different. The micropolitical textures of my examples show us the significance not of names but of matters—artifacts and events and fields of reference—emerging through collective self-invention not amenable to capture by empirical sociology or through the reward systems of our tri-council funding agency, as well as the importance of maintaining a flexible relationship to dominant institutional formations while engaging in microinstitutional experimentation and provocation. Such microinstitutions are not closed in on themselves like hedgehogs. Rather, they consist in a transversal matrix, a mobile intersection of detachable heterogeneous components achieving a certain stability with realized projects but whose consistency is always in process.

I sense a certain nationalist grumbling: isn't *Telos* an American journal, and who reads it today, anyway? It was an ostensibly American philosophy journal founded in 1968 at SUNY-Buffalo by Piccone and, despite the youthful posturing against copyright, brushing away the cobwebs of Anglo-American philosophy departments, and its notorious internal brawling, became the destination of choice for scholars of Western Marxism and European thought—introducing many of us to luminaries like Negri, Baudrillard, and the rest. A swerve occurred in the mid-1980s that saw the journal tarry with New Right politics in Europe and later in Canada, advocating a clearly xenophobic brand of populist federalism with one foot firmly planted in the work of Carl Schmidt and the other in Jeffersonian meditations on the organicity of communities and their right

to mind their own affairs. Piccone even flirted with the ideologues of the Reform Party.

Many Canadas circulated through *Telos*. Waterloo is, in fact, the cradle of Canadian *Telos*. The first annual *Telos* conference was held at the University of Waterloo in 1970. The conference displayed all of the warts and bristles of Telosian events to come; it was uneasy about where it was—in but not of Canada and anxious about this context. There was not one session on the new Marxism in Canada in a conference largely organized by local undergraduate students (including Ian Angus and Cyril Levitt), attended by graduate students still trying to make sense of Canadian nationalism (like Andrew Wernick), and many others with close ties to various strands of the student movement whose fatal fracturing was only underlined at the conference. The classic dramaturgy of *Telos* was established there as activists belittled cop-out academics and the latter tossed recriminations against mindless activists. Henceforth all the rehearsals of this divide went more or less according to plan.

It would not be until a few years later that *Telos* situated itself in Canada through the emergence of the Toronto *Telos* Group (TTG), the model for the many editorial assemblages that defined the journal throughout the 1970s. This is a microinstitutional style that is completely original. Toronto *Telos* was also the longest standing of the editorial groups, appearing for the first time on the masthead in the winter issue of 1974–75 and thenceforth for most of the remainder of the decade until winter 1978–79, and for the final time three issues later in the fall of the same year. But even then, while no longer constituted as the and listed as such, its distinctive matter—the Short Journal Reviews—continued under the direction of coordinating editor John Fekete, with the assistance of many “former” TTG members, for several more years until Fall 1981 before petering out. Over the course of some twenty-five issues, Toronto *Telos* members, with material contributed by the Kansas and Carbondale groups, provided a staple of the journal’s back pages. Unlike other long-standing groups such as St. Louis *Telos*, members of the Toronto contingent had a regular presence in the pages of the journal and occupied key positions on the production staff and editorial associate posts. During a year spent in Toronto on a teaching contract (1974–75), Piccone himself was listed as a

member of the Toronto group for three issues, testimony to his attachment to the city and the affective dimensions of the group of young scholars (he put to work his two assistants, Brian Singer and Janet Lum, not on his courses, but on his journal). During this period (and for some years later), the journal was produced in St. Louis, and members of the production team, composed mostly of graduate students in sociology and political science at University of Toronto and the Social and Political Thought Program at York University, would make the long drive to St. Louis with Piccone to produce it. The energy, enthusiasm, and collective sense of the project's urgency that marked these junkets should not be underplayed. Some of the former members of the TTG are still in Toronto (Singer and Steve Levine at York; Lum at Ryerson; Wodek Szemberg at TV Ontario) or nearby (John Fekete and Andrew Wernick at Trent). Other former members have become well-known, even notorious, figures in political theory and intellectual history in the UK and the United States (John Keane at Westminster; Richard Wolin at CUNY, respectively). Toronto was not the only Canadian *Telos* editorial grouping. In the Summer 1980 issue (*Telos* 44), the second Canadian *Telos* group appeared in Montreal, built around Eileen Manion, Mary Papke, and Charles Levin (whose translation of Baudrillard's *For A Critique* was published by Telos Press), but it was short-lived, lasting for only four issues until Spring 1981 (*Telos* 47).

It is important to note that the practice of reviewing journals in *Telos* only appeared with the constitution of Toronto *Telos*. Singer underlined this point in response to questions about the model for this practice, which he did not provide, but nevertheless reflected: "It didn't really happen until there was a *Telos* group constituted." The practice was produced by the group and allowed for the group's reproduction: "We were looking for things that would help the group cohere. There was a certain amount of enthusiasm" (Genosko 2001b). The Short Journal Reviews displayed from the outset an extraordinary international and multilingual outlook, covering publications in Italian, French, German, and Hungarian, among others. By the Fall 1975 issue the TTG had a mailing address at York. In 1976–77, John Fekete would appear as the editor of the Short Journal Reviews. This is also the moment when *Telos* groups proliferate, in the US at least, after the Toronto model.

What made the Toronto Group successful was the close proximity of graduate students with compatible particularities who all managed to get along. Piccone's explanation of the groups is a fascinating piece of sociological speculation that situates investment of energy and talent in networks of friendship and focused projects. After graduation, "they spread all over the place" (Genosko and Gandesha 2005, 166) and, among those who became professors, most gave up the life of a political journal on the edge of academe.

What made the formation of Toronto *Telos* possible in Piccone's memory was, at least on the surface, the pre-existing social and affective infrastructure among a richly talented pool of graduate students, the manageable neighbourhoods of the once-affordable, pre-gentrified downtown, and the fact that the group had a specific task to perform, that is, the production of the transdisciplinary Short Journal Reviews, which reflected the reading, interests, and language skills of each of the members. Indeed, it was not uncommon for TTG members to have only publications in *Telos* when they found their first academic posts. Toronto permitted experimentation with microinstitutions in which extra-academic assemblages could be, to borrow a term suggested by John Fekete, *self-instituting* (Genosko 2003b) yet retreat into subsidized university spaces when necessary. York's then fledgling Social and Political Thought Program provided either a roof or a floor for an otherwise unprotected project, depending on whom you talked to.

The TTG was a completely original formation, and its specific task directed its autoproduction and the kind of opportunities for subjectification it afforded and institutional matters it formed. The formation of institutional matters is sensitive to the technologies of production that marked the pre-computerized era of journal publishing. As Fekete reflected some thirty years after the fact, he is still struck by the "cogent creativity of the enterprise." It is remarkable that the Toronto group cohered in ways that only the St Louis group approximated, but for different reasons. Yet the transversality of *Telos* editorial assemblages was restricted by Piccone's ownership of the journal, not to mention the high-handedness of his politics. Although he was willing to experiment with ways of heightening the journal's transversality—its internal flows and potential for

communication and collaboration through intensely participatory events like annual conferences, book publishing, internal communiqués, and blendings of junior and senior academics—these strategies bumped up against his own inflexible authority, examples of which would be the summary removal of Charles Levin from the editorial collective after the Baudrillard translation of 1981 (discussed in Genosko 2004a); and his “Tony Soprano approach to editing” (Genosko 2001a).

In order to better appreciate the transversal matrix of microinstitutions of Canadian cultural theory, some consideration needs to be given to the mobility of bodies in the form of what I call the *Telos* diaspora. This flow of personnel is evident in the passages of former *Telosians*; many members of the Toronto group moved, in fact, from Piccone’s project to the *CJPST*. The drift began toward the “Canadian *Telos*” as early as 1977 when Ben Agger (briefly a TTG member in 1974–75 but not well-treated by Piccone, and later a *CJPST* reviews editor) and Ray Morrow (a stalwart of TTG for most of the 1970s and long-standing *CJPST* editorial board member, who began his career at the University of Manitoba), who joined the *CJPST* in Winnipeg as review editor and advisory committee member respectively. The transits are notable: John Fekete (as a visitor to Montreal), Russell Jacoby (his Canadian years in Vancouver date from the early to mid-1980s), and John Keane as a “name” editorial correspondent, and contributing board members Andrew Wernick, Charles Levin, and Eileen Manion from the MTG. Kroker underlines that while he was a reader of *Telos*, his journal had no relationship with it—a not wholly convincing claim. For Kroker, *Telos* was a European journal, while *CJPST* was fundamentally a Canadian journal, both in its intellectuality and its self-presentation of Canadian thought to the outside world (Genosko 2004b).

Yet the two journals were also critical projects, and for Kroker what this meant was that European theoretical traditions needed to be “rubbed against the facticity of our historical and political situation.” The commonality of critical orientation and background did not entail canonical thought, as issue after issue of the *CJPST* restlessly explored emerging ideas in postmodern thought, feminism, male hysteria, dependency theory, psychoanalysis, and Hollywood. Can the same be said of *Telos*? While the diversity of *Telos* is also remarkable, especially the multinational and multi-disciplinary commitments within the context of Western

Marxism and the ingenuities of its rejection, efforts to integrate feminist thought were piecemeal at best; this was one of the reasons Mark Poster gave for leaving the journal (Genosko 2004). To be sure, reviews of important books in feminist theory were certainly published and debates initiated in a regular succession in the early 1980s through the efforts of former MTG members Manion and Mary Papke. But these were mostly confined to reviews and not lead articles, and engagement with feminist theory eventually disappeared from *Telos's* pages. As well, despite the quality of contributors in cultural and communicational theory (Poster, Stuart Ewen, Martin Jay), this work was downplayed, with the exception of Christopher Lasch's writing on narcissism.

Telos's Canadian orientations and episodes facilitated its self-institution and the auto-unfolding of its editorial assemblages; the most compelling example of this autoproduction is in the activities of the Toronto Telos Group. Moreover, the transversal matrix of critical journal projects involves not so much the actual transport of key personnel across borders as an opening of pathways of communication, as individuals coming into their own seek avenues for subjectification in which they can find the means, as Fekete put it, to "express their own developing sense of the world or political commitment" in intellectual exercises, such as the Short Journal Reviews, undertaking translations, and getting involved in the related tangle of practices in journal publishing in or on the margins of academic professional life.

What is most remarkable about the *CJPST* is the diversity of institutional matters made available through, for example, the "Theory Workshops" it sponsored during the 1980s at the Learned Societies that ran parallel to the large, national professional-association-sponsored meeting, and the pamphlets it published under the rubric of "CultureTexts." This experiment in pamphleteering was short-lived but grew out of the contact between Kroker and former TTG member Kermit Hummel (active in Toronto between 1976 and 1978), who was then an academic editor at St. Martin's Press in New York. Certainly, quite unlike *Telos*, *CJPST* made space available for artists and designers, and the print medium itself was explored to the breaking point as production changed and the journal went online under a new guise, regardless of what one believes about the continuity of *CJPST* and Ctheory.org.

The physical production of the *CJPST* was made possible in the first instance by a grant from the Bronfman Family Foundation that helped it through the trial period, before it became eligible for federal funding through the Canada Council and SSHRC. *Telos* did not enjoy this level of subsidization. But like *Telos*, *CJPST* was produced by a couple, with several new spouses in the case of Piccone. The partnership involved in acquiring craft knowledge, and the physical labour of production, together with the demands of the review process and editorial tasks, in addition to distribution, accounting, and negotiating with the press, strains more than just backs and eyes. By placing the couple, the private and domestic, at the heart of production, a myriad of additional stratifications may become visible and complexify interactions within editorial assemblages, changing the consistency of the project. Couple issues, financial strain (especially in Canada with the introduction of the GST), the physicality of production and the hand-mailing of issues, right down to the briefcases of heavy manuscripts that editors regularly dragged around, all bear upon what I am calling microinstitutional autoproduction.

CONCLUSION

My CERFI example recounts the inglorious breakdowns and evolutionary strands along the way in creating a microinstitution around the journal *Recherches*. This example stands in rather stark contrast with the extended life that *Communications* would enjoy through the beneficence of the French National Centre for Scientific Research. As the CNRS came to control a large portion of the annual research budgets of a number of ministries, Guattari fulminated against the “CNRSization of research” in France (Guattari 1980, 156), by which he meant state-sponsored “social science” research brokered by providing training, directed grants, sponsoring labs, and so on. Under the CNRS, interdisciplinary research is heavily encouraged, especially in the area of information-communication-knowledge. Today, the CNRS funds the Edgar Morin Centre within the Institute for the Anthropology of Contemporary Societies in the École des hautes études, a transdisciplinary research space for training graduate students that supersedes Freidmann’s centre. And it still publishes *Communications*. Around

1980, a “rescue” of *Recherches* was attempted by Lion Murard and Patrick Zylberman, who severed all ties with what they considered to be the navel-gazing radicalism of the old CERFI and recommended the erasure of the microinstitution altogether, including Guattari. By 1981 neither CERFI nor Guattari was in the picture (Dosse 2007, 334–35). Nonetheless the journal soldiered on for some time without generating the glowing constellations of its original microinstitution commitments. This does not mean that it no longer exuded any microinstitutional matters whatsoever. Rather, a well-formed substance like an ongoing journal is an archive of such a moment of change and scattering of personnel, and its newly constituted board, contributors, and revised inter-institutional publishing relations are reshaped in and through contractions and new delineations. Journals outlive their editors in some respects.

The problem is that such a project loses its living, organic relation to its microinstitutional commitments and becomes more like a product disembedded from the vision of transdisciplinarity that gave it shape and guided it. Changes in funding, political change at the level of the state and in terms of a retrenchment against the excesses of the *soixante-huitards* by the “new philosophers,” the inevitable diasporic wanderings of members, and professionalization within publishing culture reshaped the project. Obviously, microinstitutional matter is still generated by writing histories of and reflecting on the lessons of CERFI, and studying the destinies of *Telos* and *CJPST* on the web. But the loss of a living collective project which found expression through the journal format, the very technology that served as the “common good” (*Histoire du CERFI*, 3), is irreplaceable. Still, the survival of microinstitutional spaces organized non-collectively around state-directed knowledge mobilization and great (wo)men or the survivors of academic political battles (like Morin, not to mention Kroker), also underscores the poverty of victory when the terms are set elsewhere—autoproduction becoming reproduction without dialogue—and which turns transdisciplinarity into the rhetorics and practices internal to the entrepreneurial research university. What this brief study of journals suggests is that transdisciplinarity has a tendency to work itself out betwixt and between journal publishing on the margins of academe, or at least in its interstices, while relying upon the conviviality of an intellectual community that can only hold together for a short time, and that the research

arms of government, which enjoy playing favourites, and are peculiar to national traditions (France and Canada), produce ambivalent results.

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Gender, Women's Rights, and Religion
An Interdisciplinary Case Study

MORNY JOY

This essay is an exploration of the field of religious studies and the possible contribution it can make to interdisciplinary studies.¹ I describe religious studies as a field rather a discipline because it is inherently interdisciplinary in its orientation. That is, there are many disciplines that are included in the study of religion—anthropology, history, literary theory, psychology, sociology, and philosophy, to name the most prominent. Yet, interestingly, religious studies is rarely mentioned in any discussion of interdisciplinarity. The orientation that religious studies follows at the University of Calgary, where I teach, is that of a non-normative and non-apologetic one, grounded in the same roots from which other disciplines in the human sciences emerged. Thus I believe that it has much to offer on topics where an interdisciplinary approach helps to clarify and refine certain problematic cases and questions. From this perspective, this essay is a case study of sorts, in that it illustrates how religious studies can contribute to present debate on the contentious subject of religion and human rights or, more specifically, women's rights. One of the principal difficulties in approaching this particular issue is that it is usually presented as a strict dichotomy, where religion and rights are regarded as

mutually exclusive, along similar lines to those of the private and public domains of existence. Another related opposition is that between the individual and his or her community. I think that there is a need to move this debate beyond the simplistic dualisms that frame the issue so that a more nuanced discussion can occur. This is not to say that I think the public/private distinction should be totally abolished but that, in certain instances, the basic binary structure needs to be adjusted. Often such binaries only serve to exacerbate the situation rather than lead to a more informed awareness.

To state the problem starkly, there are many secular thinkers today who profess that no one in their right mind would have anything to do with religion. On the other side, there are fundamentalists from various religions who wish to allow religious attitudes and doctrine not only to encroach on the public domain, but even to dominate it. It is unfortunate that the public treatment of the two sides seems to allow these two extremes to control the coverage in much of the popular media. It would seem that it is time to move beyond these stereotypes and examine what other possibilities could be proposed from a moderate point of view, so that not every woman who wears a veil is regarded as a fundamentalist, nor every secularist is assumed to be a dogmatic atheist.

So where to begin? The situation with regard to women's rights and religion today is a somewhat complicated and troubling one. This is because such rights are opposed not only by fundamentalists, but also by traditionalists, as well as by postcolonial thinkers and by critical social theorists who think that rights as a concept is just another facet of late capitalistic American imperialism, or globalization. It is thus difficult to address all of these aspects at once in order to clarify the beginnings of a more constructive approach, but I think they all need to be addressed. This can only be done, I believe, by taking an interdisciplinary approach where religious studies features as one of the contributors.

By way of introduction, so as to illustrate further complexities of the issue, I would like to turn to two Canadian situations that are extremely instructive. One is the long-standing ignominious treatment of the Indigenous women² in Canada and their struggle for recognition, and the other is the recent case of the proposal to adopt Shari'a law in Ontario and

its consequences. I will not go into great detail in either of these cases, as I have written on them at length elsewhere (Joy 2008), but what is most of interest is the way that they are played out in the media and also within their respective jurisdictions.

TWO CANADIAN EXAMPLES

Many narratives written by the Aboriginal women of Canada testify to injustices suffered not only because of prejudices resulting from perceived differences of pigmentation or genetic inheritance, but specifically because of gender difference. This is evident in an ongoing failure to recognize Aboriginal women's rights in many parts of Canada to community or band membership and to respect their position as trusted guardians of the tradition. It is also manifested in the disproportionate rates of Aboriginal women subjected to judicial procedures and subsequent incarceration. But, most especially and tragically, it is all too obvious in the very numerous acts of violence and murder that are inflicted upon them.³ These are forms of discrimination that contemporary justice has failed to rectify, and their continuation indicates a pattern of enduring injustice and racial prejudice. As if to emphasize the seriousness of this situation, in 2004 Amnesty International issued a report entitled "Stolen Sisters: A Human Rights Response to Discrimination and Violence against Indigenous Women in Canada" (Amnesty International 2004).

The president of the Native Women's Association of Canada (hereafter NWAC) at that time, Beverly Jacobs, a Mohawk member of the Six Nations of the Grand River, wrote one of the reports presented to Amnesty. In documenting the untold instances of violence against the Indigenous women of Canada, Amnesty states: "The social and economic marginalization of Indigenous women, along with a history of government policies that have torn apart Indigenous families and communities, have pushed a disproportionate number of Indigenous women into dangerous situations that include extreme poverty, homelessness and prostitution." The report also states: "Despite assurances to the contrary, police in Canada have often failed to provide Indigenous women with an adequate standard of

protection” (Amnesty International 2004, 2). This stands in sharp contrast to Indigenous women’s status in precolonial days when they were held in respect and honoured as guardians of their traditions.⁴ In their world, it needs to be stressed, religion was not regarded as a separate sphere from other domains of life, as it tends to be in modern, liberal societies.

One specific case which provides graphic evidence of Aboriginal women’s diminished status is that of Sandra Lovelace, a Maliseet woman from the Tobique First Nation in New Brunswick. Sandra married a non-Indian man and as a result was no longer regarded as a status Indian under the provisions of the Indian Act of 1876. When she subsequently divorced this man, she was barred from returning to the reservation, which meant that she and her sons had no shelter or means of support. (No Indian man who marries a white woman loses his status.) After her legal appeals were disregarded in Canada, Lovelace took her case to the United Nations Human Rights Committee. In July 1981, the committee judged in her favour, decreeing that:

Sandra Lovelace, because she is denied the legal right to reside on the Tobique Reserve, has by that fact been denied the right guaranteed by Article 27 to persons belonging to minorities, to enjoy their own culture and to use their language in community with other members of the group. (Lovelace v. Canada, 2 H.R.L.J. 158 [U.N.H.R.C.], 1981, para. 13.2, quoted in Jacobs [2005, 183])

In contemporary Canada, since the inclusion of the Canadian Charter of Rights and Freedoms in the Constitution Act in 1982, Aboriginal women such as Teresa Nahanee, a lawyer and member of the Squamish Nation, think that the status and rights of Indigenous women would be better protected under the Canadian Charter of Rights and Freedoms rather than the Indian Act (Nahanee 1997). Today, then, certain Aboriginal women are demanding that recognition of their previous status be restored in terms of the Charter. At the same time they also wish to be free from discriminatory practices and have access to basic human rights, such as freedom from violence, and adequate protection under the law.

Yet this strategy has not been welcomed in some communities. Joyce Green, a Métis scholar, has described the negative reaction to Aboriginal

women who adopt this position: “Women advocating the explicit protection of women’s equality rights were attacked for undermining the greater cause of Aboriginal rights” (Green 1993, 114). Nahanee also understands the situation to be particularly fraught, but she refuses to allow the situation to be framed as an opposition in terms of rights versus the Indigenous community, which she understands to be counterproductive. “As long as the dominant forces within the Canadian and Aboriginal patriarchy continue to use the prison of collective rights to denigrate the Aboriginal women’s struggle for sexual equality rights as a dichotomy of individual/collective, women will be unable to capture popular support inside and outside the community” (Nahanee 1993, 370). Both Nahanee and Green consider the individual rights/community issue to be a false dichotomy. Nahanee declares: “Each and every individual comprises the collective; there is no collective without them” (370). She believes that individuals are inextricably interconnected with their community in extremely complicated ways that are not always in accord with the dominant view.

What needs to be stressed in this case is that in asking that their previous status be restored, Aboriginal women insist that their former religious status of parity be included. This, then, is a particular set of circumstances, where in contrast to the debate in Canadian society at large, human rights and religious rights are not at variance but actually, in fact, coincide. Unfortunately, however, the issue of the individual versus the community looms large.

This situation can be contrasted with the terms of the debate in Ontario concerning the recommended adoption of Shari’a in Family Arbitration courts to settle family disputes.⁵ (Since the Arbitration Act of 1991, such courts had existed for Jews and certain other religious groups. This arrangement was viewed as a way of alleviating heavy caseloads in the civil courts.) After further consultation, with strong protests being registered by many women’s groups—including those of Muslim women—and sensationalist coverage by the media, the premier, Dalton McGinty, decided not to allow this recommendation to be put into effect, and all such courts were disbanded. What was both fascinating and alarming about the whole procedure was the language of polarization that dominated the popular terms of the debate. And it is this aspect on which I would now like to focus.

A Canadian professor of law, Natasha Bakht, has commented on the situation. She is worried that the move to arbitration reflects an attitude on the part of the government to wash its hands of dealing adequately with the status of women in religions—particularly in a time when fundamentalism is increasing. This mirrors the fact that courts seem to be increasingly unwilling to make decisions on matters of religion. The state seems to be reluctant to take responsibility for matters that are considered private. In her article, Bakht invokes the words of Nicola Lacey: “The ideology of the public/private dichotomy allows government to clean its hands of any *responsibility* for the state of the ‘private’ world and *depoliticizes* the disadvantages which inevitably spill over the alleged divide by affecting the position of the ‘privately’ disadvantaged in the ‘public’ world” (Lacey 1993, 97; emphasis in the original). Bakht notes that Lacey views such non-regulation by government as amounting to a maintenance of the status quo, that is, “support of pre-existing power relations and distributions of goods within the ‘private’ sphere” (Bakht 2004, 23). Bakht arrives at this conclusion because, in Canadian law, the burden of proof for a breach of the Charter of Rights and Freedoms falls on the person who is making a charge of such a breach. Such an onus places women in a difficult and demanding position.

Bakht also makes an intervention, however, on behalf of Muslim women who may want to accept arbitration by Shari‘a. She states that one cannot automatically presume that such women are either ignorant or oppressed in making such a choice. To do so would be to “infantilize” Muslim women in discriminatory ways. She further declares: “In fact, making an overly generalized argument regarding women’s capacities or experiences homogenizes women and potentially eliminates important differences based on intersecting grounds of oppression” (22). In support of her stance she quotes Farida Shaheed of the network “Women Living Under Muslim Law” (WLUML): “WLUML recognizes that living in different circumstances and situations, women will have different strategies and priorities. We believe that each woman knowing her own situation is best placed to decide what is the right strategy and choice for her” (Bakht 2004, 22).⁶

Another feminist scholar, Sherene Razack, who is a professor of sociology and equity studies in education at the Ontario Institute for

Studies in Education of the University of Toronto, and whose principal areas of scholarship concern race and gender issues in the law, warns against a strategy that she believes was all too prominent in the debate. Though she concedes that something positive may have resulted from this exercise, in that the “plans of a small conservative religious faction may have been upset,” she believes that there has certainly been a narrowing of focus and attitudes that she understands as damaging for all concerned. This is because of the harmful dualisms that have been reinforced. These dualisms are: “Women’s rights versus multiculturalism; West versus Muslims; enlightened Western feminists versus imperiled Muslim women” (2007, 29). From her perspective, such divisions have rather pernicious consequences, especially as they concern feminism. “I argue that in their concern to curtail the conservative and patriarchal forces within the Muslim community, Canadian feminists (both Muslim and non-Muslim) utilized frameworks that installed a secular/religious divide that functions as a colour line, marking the difference between the white, modern, enlightened West, and people of colour, and in particular, Muslims” (6). In a post-9/11 climate, such a facile distinction serves to “keep in line Muslim communities at the same time that it defuses more radical feminist and anti-racist critique of conservative religious forces” (6). It also does not leave any space for negotiation with Muslims who hold moderate faith-based views. Such discussion could have resulted in a more productive public and governmental interchange, rather than allowing only extreme and exclusionary voices to dominate.

As is evident from this review of the process as it has developed in Ontario, where there was a clash of rights, the decision was made in favour of women’s rights to freedom of expression rather than freedom of religious practice. Nonetheless, there remain vastly differing evaluations of the decision, and many of the issues remain unresolved, so the debate will no doubt continue. The hope is that, in further reflection, the opinions of Bakht and Razack will prevail, so that the discussion will not necessarily continue in such a markedly dualistic format.

FURTHER COMPLICATIONS

One of the refrains that is particularly noticeable in the above descriptions is the prevalence of dualisms in place of mediation or dialogue. This is particularly problematic because it is occurring at a time when human rights, and specifically women's rights, are under attack from a number of other quarters. I would now like to survey these instances and the additional complications that they could cause. The different proponents of these criticisms consist of a number of disparate groups. One is a fluctuating coalition of fundamentalist religions whose members focus principally on the topic of reproductive issues. Another group consists of postcolonial critics of the Eurocentric heritage of human rights. The members of a third group are women critical theorists who take to task globalizing, US-oriented interests, including what they view as a cynical exploitation of human rights.⁷ Nevertheless, I believe that to characterize the debate as one where it is basically political liberalism and secularism that are positioned in opposition to fundamentalism is to opt to continue with the present impasse.

First, then, a quick overview of fundamentalisms is needed.⁸ Fundamentalist religions, during the early 1990s, became aware of, and began to interfere in, the progress that women had been making on human rights as women's rights at the United Nations during the previous decades.⁹ Coalitions were then formed by reactionary movements from different religions to counter the advances made. Judith Butler describes her astonishment when she learned of the manoeuvrings on the part of the Vatican in the lead-up to the Beijing conference on the status of women that took place in 1995: "The Vatican not only denounced the term 'gender' as a code for homosexuality, but insisted that the platform language [of the conference] return to using the notion of sex" (2001, 423), in an apparent effort to secure a link between femininity and maternity as a naturally and divinely ordained necessity. Joan Scott, a noted historian and theorist of gender, also reports on another occurrence in the United States around the same time, when a subcommittee of the US House of Representatives entertained submissions warning that morality and family values were under attack by "gender feminists" (Scott 1999, ix). Both the Vatican and the neo-conservative groups in the United States

had seemingly been informed of Butler's work questioning traditional gender roles in the book *Gender Trouble* (1990). In their depiction of this threatening situation, the opponents of "gender" insisted that "gender feminists" regarded manhood and womanhood, motherhood and fatherhood, heterosexuality, marriage and family, as "culturally created, and originated by men to oppress women" (Scott 1999, ix).

The resultant interventions at the UN, however, marked the beginning of a backlash against any further progress on women's rights at the UN.¹⁰ In another move, fundamentalist elements of a number of religions are using an evasive ploy, resorting to terms such as "tradition" or "culture," which are code words for religion,¹¹ to challenge the enactment of new declarations by the UN.¹² From their viewpoint, women's increasing demands for self-determination are seen as nothing more than attempts at selfish self-fulfillment. As a result, struggles continue to restrict the expansion of women's rights in various UN committees. Some scholars are beginning to wonder if it is even worth continuing the struggle for women's rights at the UN, so effectively organized has the opposition become (Posadskaya-Vanderbeck 2004). Courtney Howland, a lawyer, has documented this movement well in her article "The Challenge of Religious Fundamentalisms":

Religious Fundamentalism is premised on the notion that religious law takes precedence over all other law and defines, *inter alia*, relations between different religions and between men and women. Thus, some states have argued, in the context of human rights treaties, that religious law takes precedence over international human rights even when the state has not entered reservations to the treaty on this basis. (1997, 371)

Again, but coming from the other direction this time, religion and rights are posed in a binary that appears to situate them as mutually exclusive. Here religion triumphs over rights.¹³ Another exacerbating factor, however, that is working against women's rights concerns the views of certain contemporary postcolonial theorists, who criticize the human rights movement insofar as it assumes certain universals or even essentialist claims on behalf of all the women of the world. Speaking from a

postcolonial perspective, Inderpal Grewal, who teaches in women's, gender, and sexuality studies at Yale University, has strong reservations about the development of women's rights. She charges that, what with their emphasis on individual rights, "the hegemonic forms of Western feminisms have been able, through universalizing the discourse, to propose the notion of common agendas for all women globally, and to mobilize such discourses through the transnational culture of international law that can serve the interests of women globally" (Grewal 1999, 340). At the same time, however, Grewal will concede that, while "human rights may remain Eurocentric in many of its assumptions and goals," they may be "one of the very few tools to struggle for the rights of the disenfranchised" (341). Basically, Grewal's view is that the language of women's rights fosters an essentialism that takes as a basis the Western understanding of the individual as the subject of human rights. They charge that this understanding is then applied in all contexts, without any consideration of the divergent views and values in specific regions of the world. Another problematic position often voiced in this connection is that by thus assuming a commonality among all women, specific local structural anomalies are overlooked. On this score, Grewal draws attention to the fact that the "discourse of rights has been more popular in struggles for civil and political liberties by elites, whereas the struggle for social justice has been the discourse of more mass based movements," such as NGOs (339). Postcolonial critics such as Grewal are also mindful of the fact that human rights also depend for implementation on international law and tribunals. They view these institutions, as well as their national equivalents, as biased in favour of the male of the species, situated as they are within the purview of nation-states. This is because they also view the founding impulses and subsequent concerns of such institutions as being predominantly masculinist in tone. (A graphic illustration of such bias was the difficulty encountered in getting the case of rape as a war crime to be added to the agenda of the International Court.) Another concern often expressed is that, in some countries, the institutions or agencies to which women must appeal for redress are the very bodies that are responsible for the activities that have violated their rights.

A final and telling postcolonial complaint by Grewal is that “human rights is based on linear notions of progress and relies on notions of the south as Other—utilizing North/South inequalities to claim that the North has human rights (with a few aberrations) and the South needs to achieve them” (338). What she recommends instead is that careful attention be paid to the regional variations and the particular socio-economic, political, and cultural conditions that are inevitably always interrelated in unique combinations. As a result, human rights and their violations can never be solely defined or implemented only in accordance with a Northern-generated model—or with any unreconstructed universal formula, for that matter.

Finally, Wendy Brown, a professor in political science and women’s studies at University of California at Berkeley, has certain misgivings about human rights, especially as they have featured in the recent American political landscape. Brown’s Marxist-inspired radical critique does not recommend the elimination of human rights, but she believes that their purview is limited. In one sense, they have been tarnished by their implication in the Bush political platform—albeit misinterpreted or cynically manipulated. She quotes Donald Rumsfeld’s declaration that “the war on Terrorism is a war for human rights” (2004, 460). Secondly, in an earlier essay, Brown had enumerated her qualifications of the value of human rights language for women. She appreciates that there are certain paradoxes involved in the deployment of human rights. One of the most prominent is “that rights that entail some specification of our [women’s] suffering, injury, or inequality lock us into the identity identified by our subordination, and rights that eschew this specificity not only sustain the invisibility of our subordination but potentially even enhance it” (2002, 423). Nonetheless, similarly to Grewal, Brown concedes that though flawed, rights talk and action are necessary. As a result of her reflections on the dilemmas involved, she concludes with a vision—posed in a number of rhetorical questions—that evoke their yet (or maybe never)-to-be-achieved ideals. Such a vision helps to prevent premature closure. Perhaps the most compelling of these questions is: “How might attention to paradox help formulate a political struggle for rights in which they are conceived neither as instruments nor ends, but as articulating through

their instantiation what equality and freedom might consist in?" (2002, 432).

One scholar who is particularly helpful as a respondent to these various criticisms is Uma Narayan, a professor of philosophy at Vassar College. She is extremely suspicious of any essentialized definitions of culture and tradition in the interests of religion and in opposition to rights, be they "East" or "West." In her book *Dislocating Cultures*, Narayan issues a warning: "We need to be wary about all ideals of 'cultural authenticity' that portray 'authenticity' as constituted by lack of criticism and lack of change. We need to insist that there are many ways to inhabit nations and cultures critically and creatively" (1997, 33). From this perspective, Narayan first takes issue with Western colonial impositions in India, where she was born, especially with misleading gender analyses by Western feminists, such as Mary Daly, who falsely oversimplify by decontextualizing certain Indian practices, such as *sati*.¹⁴ Narayan, however, also takes to task India's own attempts to invoke essentialist categories in connection with idealized projections of a "national and cultural identity," particularly as has been done in the Hindu form of fundamentalism (or Hindutva). She is particularly articulate about the exploitation of exalted depictions of women as central components of "cultural identity." She describes how, in consequence, women who stray from such models, specifically those who support the notion of human rights, are labelled as cultural betrayers. Narayan expands on this: "Third-World feminist criticisms of practices and ways of life that are harmful and oppressive to women are depicted as mere symptoms of an antinationalist cultural disloyalty and as forms of 'cultural inauthenticity' rooted in an adoption of 'Western' ways and values" (20).

Narayan takes a strong stance against any idealized forms of cultural and religious essentialism and the inevitable dualisms that they entail. One such manifestation, a hallmark of many fundamentalist religious movements, is a manipulation of history in order to promote a glorious past from which contemporary society has sadly fallen and which needs to be re-established. It is women's deviance from the ideals of this past that is largely held responsible for the supposed decline. As a result, women need to be rescued from their fallen ways and returned to male supervision and appropriate forms of "femininity." Narayan will have none of this. In

drawing her own conclusions about such directives, she states that just as there can be no one essential description of the female gender, so there is no authentic cultural identity, let alone religion. In expanding this position, Narayan's finally rejects not only the idea that there is anything that can be regarded as quintessentially "Indian culture" but also the notion of "Western culture" (187–88), especially in connection with religion. Yet Narayan is not completely dismissive of religion, allowing: "Many religious traditions are in fact more capacious than fundamentalist adherents allow. Insisting on humane and inclusive interpretations of religious traditions might, in many contexts, be crucial components in countering the deployment of religious discourses to problematic nationalist ends" (35). Narayan's critiques of both "gender" and "culture," including their faulty appropriation by religion, help to counteract the effects of their being invoked in idealized and inflexible formulas that promote duality and prevent constructive exchange between feminist thinkers from different backgrounds.

Such a critical perspective, which debunks idealized or unqualified statements, would appear to be extremely relevant to the problematic definitions and applications of universal women's human rights. Yet, in my view, this does not mean that the concept itself needs to be abandoned or dismantled as beyond repair, as it has had a definite positive impact, as even some of its fiercest critics, such as Grewal, allow. In one sense, to abandon the idea of human rights for women would, to a degree, allow the fundamentalists to emerge triumphant. So, it then becomes necessary to survey some of the potential solutions that are being proposed by various scholars to the dangers implied by universal applications that tend to distort issues, by reification or essentialism, and lead to inevitable bifurcations.

A major part of the problem, as I described it in this essay, has been that the argument concerning women's human rights has been conducted along the all-too-predictable lines of a binary opposition. It may not necessarily be the case, however, that an "all-or-nothing" solution is the appropriate response. A number of contemporary women thinkers, who belong to different religions and yet support human rights, would agree. And it is in relation to this development that I believe that the overall strategy has to change from the stand-off between the traditional secular, liberal camp

and the fundamentalist one. It is not necessarily the case that a political person, advocating for human rights for women, is anti-religious. Terms such as anti-dogmatic and/or anti-essentialist may be better qualifiers. Such terms would definitely apply to the many women, from different religions and regions of the world, who have been active on women's behalf at the UN during the past thirty years, as Devaki Jain (2005) has wonderfully described them.

To develop this position, I would now like to turn to some of the solutions that are being presented by such women who do not think of religion and women's rights as needing to remain separated.

A TENTATIVE RESPONSE TO THE CHALLENGES TO WOMEN'S RIGHTS AND RELIGION

One approach, taken by Madhavi Sunder, a professor of law at the University of California at Davis, advises women to claim their rights against religious oppression. She terms this approach "the new Enlightenment." Her description of those who participate in the movement is as follows:

These individuals reject the binary approach of the Enlightenment, which forces individuals to choose between religious liberty (on leaders' terms) in the private sphere and equality (without a normative community) in the public sphere. Rather, they articulate a vision of human flourishing that requires freedom *within* the context of religious and cultural community. This vision includes not only a right to equal treatment in one's cultural or religious community, but also a right to engage in those communities on one's own terms. (2005, 268)

In the present context, I cannot develop her ideas in detail and comment on them, but I see in her position a place for a renegotiation for women who find themselves in traditions that are resorting to fundamentalist dictates and trying to silence progressive voices. Sunder then refers to an earlier article she wrote: "Cultural dissenters, or 'individuals within a community [who seek] to modernize, or broaden, the traditional terms of cultural membership,' challenge the traditional liberal understandings

of liberty and equality as premised on a ‘thin’ theory of the self” (268 [2001, 551]). She then continues:

Their claims suggest that traditional liberalism takes too lightly the ease of exit from one’s community and the desirability of culture; I read in the rise of cultural dissent that human flourishing requires not only a liberty right to normative community, but access to a community free of the fear of discrimination within it. (268)

Such a development challenges the Western traditional public/private distinction, especially the assignment of human rights as belonging to the public sphere while religion is delegated to the private. It is in this private sphere, indeed, that much violence against women takes place and has been, until very recently, outside the reach of either law or rights.

Other women scholars are moving in similar directions, though they state the problematics of the situation differently. In her article “Will Dualisms Tear Us Apart? The Challenges of Fragmentation in Identity Politics for Young Feminists in the New Global Order,” Suzan Pritchett, a young America scholar, describes the problem eloquently:

When I speak of the New Global Order, I am referring to a world illustrated by the powerful forces of war and militarization, religious fundamentalisms and the spread of globalization and free-market [or late-capitalistic] democracy. I speak of my personal national landscape coping with the traumatic upheaval of the events surrounding 11 September 2001 and the subsequent re-masculinization of foreign and domestic policy. I am reflecting on an international climate characterized by increasing disparities between nations and between people, and continuing inequality between men and women. At every turn in this tumultuous climate, young women are being faced with dualistic politics and polarized identity politics. (2005, 9)

Perhaps what saddens Pritchett most is the fact that “the neutral middle ground where ideas and politics could once be contested has turned into an ideological battlefield where the consequences of militarization, fundamentalism and globalization are most felt” (15). Her recommendations

are of a more general nature, and not specifically directed at the rights and religion debate, but are nonetheless telling. She proposes that there must a movement of dialogue that seeks not to allow these ideological forces to dictate the dualistic terms of reference, and that dialogue rather than confrontation be pursued so that the difference of others is not allowed to be demonized in the way that it has been by the present lethal combination of politics and religious fundamentalism.

Mahnaz Afkhami, a former minister of state for women's affairs in Iran and an international activist now in exile in the United States, addresses another form of duality that needs to be dismantled. This is the one that pits individual rights against the community and views them as mutually exclusive:

We must move beyond the theory of women's human rights as a theory of equality before the law, of women's individual space, or a "room of one's own," to the theory of the architecture of the future society where the universality of rights and relativity of means merge to operationalize an optimally successful coexistence of community and individuality. This architectural theory will point to a dynamic design where broadly conceived human relations evolve with the requirements of the times as they satisfy the needs of both community and individuality. (2004, 66)

It is worth noting that this development does contain certain provisos deemed necessary for its success:

We must insist that no one, man or woman, may claim a right to a monopoly of interpretation of God to human beings or a right to force others to accept a particular ruling about any religion. The upshot of this position is that women ought not to be forced to choose between freedom and God. The same applies on the part of tradition. (65)

Finally, there has been a remarkable change of attitude on this issue in the work of that grand critical thinker and debunker of all false pretensions to essentialisms of any variety, Judith Butler. I have discussed this development elsewhere (Joy 2006), but I shall repeat it here, for I do think it has a particular relevance for the issue at hand. Butler has rejected those who

have associated her with an easy relativism and who blame Foucault's influence on her. One of the influences on her change of approach was no doubt the machinations of the Vatican and other conservative religious groups prior to the World Congress of Women mentioned earlier.

In an interview in 2001, entitled "The End of Sexual Difference," Butler admits that in her earlier work, *Gender Trouble* (1990), she may have played too fast and loose with the notion of gender as performance, as an optional mode of identity that just is up for grabs, at the expense of recognizing the physical body and claims that could be made on its behalf for protection from abuse and violence. She acknowledges that gender will always remain a contentious site and needs to be constantly questioned—because certain societies, groups and religions in particular will continue to employ it not only in a regulative manner, but even as invariable and non-negotiable. Aware of the gains that have been made by fundamentalists, however, and the contemporary inroads that have been made to reframe, restrain, and even cancel many of the rights that had been hard-won by former generations of women, she allows: "Although many feminists have come to the conclusion that the universal is always a cover for a certain epistemological imperialism, insensitive to cultural texture and difference, the rhetorical power of claiming universality for, say, rights of sexual autonomy and related rights of sexual orientation within the human rights domain appears indisputable" (2001, 423).

CONCLUSION

There are no easy answers or quick solutions to the complex and seemingly irrevocable dynamics of the present world situation and its deadening effects on both the minds and bodies of many innocent people. Human rights, conceived in terms of respect and recognition of the other as a person with the same rights and entitlements as I have, and violations of such rights in the continued neglect, even refutation, of such respect and recognition, however, is an issue that I believe is situated at the very heart of the problem. Women's rights are but one dimension of this overriding problem. There is a dire need, as the women contributors in this essay have articulated, to question, from an interdisciplinary perspective, the

prevailing world view and the simplistic dualisms that continue to dominate and perpetuate the universalisms and essentialisms that dictate the terms of engagement with the world.

From this perspective, it seems appropriate that the language of rights itself has to move beyond the notion of irreducible individual entitlement to one that is more diverse and nuanced in its appreciation of communal diversity and yet also founded on a solidarity resulting from a dialogue and communication that goes beyond a perfunctory theoretical nod in the direction of difference. Religious studies is strategically situated to contribute to these developments—both because of its hermeneutic study of texts that can weed out dubious claims to authenticity and because of the finely wrought examinations of fundamentalisms and their attempts to undermine a human and women’s rights’ agenda.

NOTES

- 1 Parts of this essay are revised versions of material that originally appeared in “Women’s Rights in the Context of Religion,” *Svensk religionshistorisk arsskrift* [Swedish Yearbook of the History of Religions], April 2008: 181–200, and in “Gender and Religion: A Volatile Mixture,” *Temenos* 42, no. 1 (2006): 7–30.
- 2 The term “First Nations” is the preferred phrase used today by Indian bands who have status in terms of the Indian Act. In this paper, various words, such as “Indigenous,” “Native,” “Aboriginal” are also used, usually in connection with a specific writer’s preference. Each of these words has varying levels of acceptance among the Indigenous peoples of Canada. The Indigenous peoples of Canada—Indians, Inuit and Métis—are named in the Indian Act, which was enacted in 1876 by the Parliament of Canada under the provisions of s. 91(24) of the Constitution Act of 1867. It gave the Canadian government sole authority to legislate in regard to “Indians and Lands Reserved for Indians.”
- 3 See the “Sisters in Spirit” webpage at http://www.amnesty.ca/campaigns/sisters_overview.php. This page was set up by the Native Women’s Association of Canada (NWAC). They launched the national Sisters in Spirit Campaign in March 2004 to raise public awareness of the alarmingly high rates of violence against Aboriginal women in Canada. NWAC believes there continues to be an urgent state of affairs with regard to the safety of Aboriginal women in Canada.
- 4 Cora Voyageur describes the position of women prior to the European settlement: “Prior to colonization, women were a strong force in many Aboriginal societies. . . . In a number of North American Indian tribes, women traditionally selected male chiefs as political

chiefs and could remove them. . . . Also, in many tribes, women owned substantial property, including the marital home, and exercised exclusive dominion over the means of production and the products of major subsistence activities. . . . Women in many tribes held the power to initiate or to call off war” (2000, 86).

- 5 On 17 January 2005, a former Ontario Attorney General, Marion Boyd, who had been appointed by the provincial government to evaluate the situation, recommended that Islamic tribunals also be allowed to use Shari’a law to settle such disputes in that province. Boyd’s recommendation was not binding, however, and both it and the Arbitration Act itself were then submitted to review.
- 6 Bakht quotes from “Asian Women in Muslim Societies: Perspectives and Struggles,” Shaheed’s keynote address at the Asia-Pacific NGO Forum on Beijing+10 (Mahidol University, Nakorn Pathom, Thailand, 30 June to 3 July 2004): see <http://www.wluml.org/node/1557>.
- 7 Zillah Eisenstein, for instance, would argue that the former Bush administration perpetrated a cynical and superficial manipulation of human rights when, in their efforts to free Afghani women from subjugation, they portrayed them both simplistically and unproblematically. They did this at the same time as circulating images of their view of ideal (conservative) American womanhood and condoning violations of the rights of American citizens (2005, 110–17, 124–27).
- 8 I use this term in the plural because I do not believe fundamentalism manifests itself in the same way in different religions. See Marty and Appleby (1991).
- 9 As Amrita Basu comments in “Women’s Movements and the Challenge of Transnationalism”: “Parallel to the evolution of transnational women’s movements, and equally important, has been the phenomenal growth of transnational networks of the religious right. We saw this in the 1994 Cairo conference on population and development, and again in the Beijing [women’s] conference of 1995. In both these contexts one found a thoroughly transnational alliance of groups on the religious right, not only official state organizations but also members of non-state organizations, including religious bodies like the Catholic Church” (Basu n.d.).
- 10 The Vatican again has been particularly active. It has attempted to influence members of the Catholic communities from a number of countries (especially in Central and South America) (Stein 2001). In addition, it has made strategic coalitions between Catholic and Islamist countries to support its own position. Part of its strategy is to argue that the idea of human rights for women, especially in the context of gender, is a “Western,” i.e., colonialist, imposition. This alignment by the Vatican with the colonized and underprivileged of this world, as well as with a non-exploitative stance, would seem to rest on a patently manipulative, if not ironic, interpretation of the concept.
- 11 On the side of tradition, religion is ironically posited as an endangered species of culture. Such an understanding of “tradition” and the “culture” that accompanies it, posits them both as pristine and transparent in their originary impulse, untainted by history.
- 12 This was especially apparent in the recent failure by signatory nations to pass a

resolution on the implementation of the Declaration of Elimination of Violence against Women, ostensibly on these grounds of protecting religious traditions. (Certain member nations were allowed to register reservations that meant, in effect, that they were not full signatories to these agreements.) Technically speaking, these reservations mean that such nations are in violation of certain articles of the UN Charter.

- 13 Further exploratory essays on these issues can be found in Bayes and Tohidi (2001) and Hawley (1994).
- 14 Narayan expresses her objections to Daly's approach eloquently: "Thus, while Daly-type accounts of 'tradition' provide room to politically challenge such practices on the grounds of their harmfulness and oppressiveness to women, challenges that are not unimportant, they do not provide the tools additionally required to challenge the status of these practices as 'indigenous traditions.' . . . Western feminist work that forecloses the second type of challenge by buying into misleading views of the nature of Third-World 'traditions' might, with good reason, appear both inadequate and dangerous to Third-World feminists politically engaged in challenging these traditions" (1997, 78).

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Literacy Studies and Interdisciplinary Studies
Reflections on History and Theory

HARVEY J. GRAFF

One of the sleights of hand of interdisciplinarity is that it deludes us into the belief that we've escaped our disciplinary boundaries. But that delusion also allows us freedom from interdisciplinary longing. Such freedom and our now more comfortable habitation in disciplinary mobility are well suited to the spatial and geographic paradigms we currently inhabit. We think of ourselves as global: rather than defy boundaries, we leap over them, less disciplined, perhaps, but also less frustrated by imaginary constraints. Worrying less about how to find something real on the other side of the interdisciplinary divide, we have more room to think about the consequences of interdisciplinary tourism, to ponder the new terms we've erected as touchstone of our common project, and to offer richer readings of those real (and sometimes hyperreal) objects of our study.

Julie Stone Peters, "Law, Literature, and the Vanishing Real: On the Future of an Interdisciplinary Illusion" (2005), 451.

Claims about literacies, and their lack, surround us, multiplying like metaphorical insects. Different observers see either an abundance of literacies forming foundations for flowing multimodalities or a crisis rooted in the presumed absence or inadequacy of appropriate literacies threatening the foundations of our civilization and polity (Graff and Duffy 2007; Graff 1995a).¹ Reflecting more than he acknowledges of the historical legacies of literacy and certain powerful literacy narratives, Leon Lederman (2008, 36), director emeritus of the Fermi National Accelerator Laboratory, writes in an editorial in *Science News*: “In a world in which illiteracy is the shame of societies where it is found, science illiteracy is increasingly disastrous. And wherever it is measured, this illiteracy rate is 90 to 95 percent.” “Science literacy” is only one of many examples, yet its implicit significance and presumed trajectory need no extended argument or explanation. In itself, it constitutes a narrative, an interdisciplinarity narrative.

In this typical formulation, literacy studies embraces two more-or-less opposing positions: that of “many literacies” *and* that of dangerously low levels of literacy, their causes, and their consequences. When conceptualized complexly—not the most common practice—their contradictory relationships form part of our subject of inquiry and part of the challenge for explication and explanation.²

The difficulties and the potentialities attendant upon literacy gave rise to a field of literacy studies during the last one-third to one-quarter of the twentieth century.³ As sociolinguist David Barton recently commented (2007, 23): “The meaning of the word literacy is to be found not just by examining dictionary entries. It has become a unifying term across a range of disciplines for changing views of reading and writing; there has been such a growth of study in the area that is now referred to as Literacy Studies or the New Literacy Studies.”⁴

Literacy studies developed as an *interdisciplinary* field of study and knowledge, the theme of this exploratory essay. As Barton further notes (2001, 93): “In many ways Literacy Studies grew out of a dissatisfaction with conceptions of reading and writing which were prevalent in education in all areas, from early childhood reading to adult literacy programmes:

these were conceptions of reading and writing which were based on over-simplistic psychological models. The critique has been made from a range of disciplinary vantage points and in a range of ways.”⁵ From “dissatisfaction” and “over-simplistic models” to criticism from multiple disciplinary “vantage points” and “ways”: This is one of the principal paths to the development of areas of interdisciplinary study and interdisciplines. Exploring the strengths and weaknesses of this path to interdisciplinarity within the context of both literacy studies and interdisciplinary studies constitutes the fundamental task of this essay.

Not surprisingly, tensions between the principal disciplines and their contributions to an interdiscipline mark the dynamics of change and development. The most common and perhaps most notorious is the clash between the cognitive/psychological approaches used in psychology (and sometimes also in literature, history, linguistics, or philosophy) and the social/contextual approaches of anthropology, sociology, linguistics, and history. These differences often parallel the conflicts between “strong” or “great divide” theories and contextual understandings/practice. More practically but no less important is the long struggle between departments of English and colleges of education over institutional “ownership” of literacy. These recognitions remind us that efforts at interdisciplinarity are inseparably part of the processes of disciplinary formation, maintenance, and shifts themselves, not a later or separate movement.⁶

The perspective outlined here also highlights key factors among the critical elements that contributed to the decline of an earlier consensus. That understanding—indeed, faith—was rooted in an integrative and “over-simplistic psychological” narrative that promulgated the universal unmediated and transformative, epoch-making power of writing and/or reading—literacy—(what Brian Street calls “the autonomous model” of literacy) and stimulated the search for alternatives. Brockmeier, Wang, and Olson (2002, 6–7) summarize this model evocatively:

A theory of literacy was outlined that made strong claims for the cultural and cognitive implications of writing. It was argued that alphabetic literacy is a unique technology of representation and communication which has been of fundamental importance for the development

of Western culture. According to this theory, oral language and written language are intellectual technologies which are causally responsible for two different types of culture, cultures of orality and of literacy. Some critics of the “literacy hypothesis” thus spoke of a “great-divide theory” (Finnegan). The watershed, to stick to the metaphor, between speech and writing, oral and literate culture was the invention (or, once it was invented, the introduction) of the alphabet.

According to this version of the “received wisdom,” the consequences were epochal and without limits. “Patently, the domain of culture upon which literacy was expected to have its impact was exceedingly broad.”

Literacy was claimed to impinge upon the entire gamut of cultural phenomena from the intellectual to the aesthetic and political, including the production of science, philosophy, history, literature, art, and religion, as well as the institutions of education, documented law, and democratic forms of social organization. Further, literacy was seen as having an impact on the individualism of modern Western thought along with forms of mentality (rational and logical), cognition (conceptual and analytical), memory (objective and accumulative), as well as forms of communication (decontextualized and emotionally distanced) and grammar (reflective and prescriptive). Here, the vision of culture that unfolded with literacy, printing, and the alphabet, merged with the idea of civilization in general. (6–7)⁷

Alternatives that arose to counter this understanding include Barton’s Literacy Studies or New Literacy Studies, or Brian Street’s “ideological model” of literacy, claiming authority in part by the act of naming. How often do incipient interdisciplines proclaim or identify themselves as “new”? It is no coincidence that the earlier dominance of “strong theories,” “great divides,” or dichotomous understandings of literacy had no need for a nominal cover like “literacy studies.” Literacy was unreflectingly incorporated into the principal narratives of the rise of the West and the triumph of democracy, modernization, and progress. Indeed, literacy was equated with those qualities, each seemingly the cause of the other

in confused causal order. Regardless of confusion, the qualities presumed for modern civilization and for literacy became interchangeable.⁸

No less coincidental is that the search for confirmation of grand theories of literacy and their “consequences,” in Goody’s and Watt’s original formula (Goody and Watt 1968), ironically did more to fuel skepticism and the search for more specific and documented contextual interpretations. (In response to criticism, Goody [1968] revised “consequences” to “implications” in the title of his introduction to *Literacy in Traditional Societies*.) That shift, in turn, led to new and different findings, and orientations, that contributed to bringing literacy studies explicitly into the realm of interdisciplinarity research.⁹

Interdisciplinary literacy studies thus developed from different methods and sources, and different presuppositions and expectations. As suggested by Brockmeier and Olson, “over-simplistic psychological” notions were often rooted in reductive great leaps across relatively rarefied cognitive and philosophical artifacts. Radical dichotomies substituted for dynamics of social and cultural change. Generalizations without qualification were applied without hesitation to large numbers of persons. And the dynamics of literacy itself were reduced to cartoonish images of literacy versus orality and print versus manuscript.

In contrast, across the sweep of the twentieth century, empirical and critical studies in oral literature, folklore, psychology, anthropology and archaeology, linguistics, philosophy, sociology, classics, and history began to tell different and more variegated stories. They turned to more direct evidence of literacy’s development, distribution, and uses via case studies, ethnographies, and histories that gave more attention to matters of practice and social context. Sources and subjects were approached and read more carefully and critically. Ironically, “New Literacy Studies” scholars over the past three or four decades only slowly rediscovered the truly groundbreaking work earlier in the century of oral literature researchers who climbed mountains in eastern Europe to record performances, constructing “singers of tales,” as Milman Parry and Albert Lord famously dubbed them, and comparing oral narratives (Lord [1960] 2000; Parry 1971). No less momentous but often neglected is the dynamic activism of the cultural-historical psychology of Lev Vygotsky, Alexander Luria, and their colleagues from the 1930s.¹⁰ So much richer than the modernization

studies of American sociologists after World War II, this work seems destined for repeated rediscovery. That phenomenon may also be a stop on paths to interdisciplinarity, constituting a step forward accompanied by a constraining half-step backward.¹¹

By and large, these approaches and their appropriation for literacy studies derived from several distinct disciplines, in particular anthropology, linguistics, and cognitive psychology. Through these origins or sources, literacy studies represents a search for a different but common or shared place amid the disciplines, and often outside the walls of colleges and departments of education and/or psychology. More implicitly, that place ideally should be outside the blinders of Western civilization. Literacy studies turned toward anthropology, linguistics, and cognitive (psychology) studies, with strong assistance from history, classics, and, most recently, cultural studies.

Brian Street (1993, 1) articulates a credo and point of origin for the New Literacy Studies:

The field of literacy studies has expanded considerably in recent years and new, more anthropological and cross-cultural frameworks have been developed to replace those of a previous era, in which psychologistic and culturally narrow approaches predominated (as they arguably still do in much educational and developmental literature). Where, for instance, educationalists and psychologists have focused on discrete elements of reading and writing skills, anthropologists and sociolinguists concentrate on literacies—the social practices and conceptions of reading and writing. The rich cultural variation in these practices and conceptions leads us to rethink what we mean by them and to be very wary of assuming a single literacy where we may simply be imposing assumptions derived from our own cultural practice onto other people's literacies. Research in cultures that have newly acquired reading and writing draws our attention to the creative and original ways in which people transform literacy to their own cultural concerns and interests.¹²

David Barton (2007, 24) speaks more specifically to certain central threads of interdisciplinary literacy studies and the making of an interdisciplinary of literacy studies:

A key to new views of literacy is situating reading and writing in its social context. . . . People in different disciplines have been moving in the same direction. . . . Three important academic studies, the work of Sylvia Scribner and Michael Cole, Brian Street, and Shirley Brice Heath . . . in their different ways . . . provide three threads to weave together to represent the beginnings of literacy studies and they have become classics in the field.

Psychologists Scribner and Cole wrote *The Psychology of Literacy* (1981); anthropologist Street, *Literacy in Theory and Practice* (1984); and sociolinguist Heath, *Ways with Words: Language, Life and Work in Communities and Classrooms* (1983). As classics, they became powerful signposts and markers. Barton (2007, 24) elaborates:

They are part of different research traditions but they actually have a great deal in common. All three academic studies looked at particular societies in detail, examining different groups within a society and how they use literacy. They start from everyday life and what people read and write. They observe closely and they are willing to make use of a wide range of evidence. . . . Part of what comes with these studies is a recognition of the complexity of the idea of literacy and the fact that much of our understanding of it is not obvious. This leads to new definitions of literacy.

History, represented by my *The Literacy Myth: Literacy and Social Structure in the Nineteenth-Century City* ([1979] 1991), is one missing link. In these charter statements, there is no room for precedents or longer-term perspectives. Nevertheless, these are important observations. Implicit in Barton's words are both the possibilities and the complications for literacy studies' turn (necessarily incompletely) toward interdisciplinary studies. The impact of both similarities and differences in "research traditions"

demands more attention, especially with respect to the institutions and traditions of disciplinarity and changing socio-cultural currents regarding literacy and its imperatives. Ironic as it may seem, literacy studies lacks a memory and a sense of its own history or genealogy. Neither Barton nor Street casts his gaze much before the recent past, not even to the middle decades of the twentieth century, let alone earlier. Neither Street nor Barton is much concerned with the institutional, intellectual, or cultural context of either older or more recent literacy studies. Interdisciplinary studies of literacy would benefit from knowledge of, at least, the history of specific fields, disciplines, and interdisciplines.¹³

Regardless, literacy studies simultaneously seeks to distinguish and differentiate itself in an effort to integrate, synthesize within clearer limits, and re-bound major components of the “new” field. Along with other interdisciplines, literacy studies developed and grew both within disciplines and across them, sometimes building toward interdisciplinarity, sometimes developing separately.¹⁴ Both efforts influenced interdisciplinary movements, together constituting contradictory influences on the field’s integration and differentiation. This mode of inter/disciplinary development can risk a linear, progressive, or almost teleological epistemology and explanation for the rise and effects of literacy itself as well as interdisciplinary literacy studies. For example, the more one looks, the more literacy, or literacy practices, one finds, often in complex cultural and communicative contexts. This may be accompanied by a tendency to see “more” literacy leading to more and greater effects, in part by blurring distinctions between individual, collective, and societal impacts, shifting ideologies, causes and effects, and expectations. Developments within several disciplines at once only exacerbate these complications.¹⁵

Theories of modernity and postmodernity create anticipations of soaring needs for literacy/literacies that sometimes exceed those that can be estimated or measured empirically, or attained popularly. At times the opposite—the limits of literacy—seems at least as compelling. Modernization models do this in part by projecting incomplete or erroneous narratives (and images) of the past onto the future.¹⁶ Ironically, constructing a separate, recognized field of literacy studies runs the risk of reifying Street’s “autonomous model” of transformative unmediated literacy. Yet when literacy studies initially sought confirmation of “strong

theories” and “great divides,” more was learned about the specific contexts of literacy’s uses and influences. There is also a danger of exaggerating the import of a new field of study striving for and promoting its case for recognition and institutional place. This, too, is a common component of paths to interdisciplinarity.

INTERDISCIPLINARY STUDIES

My approach to, and strong presumptions about, the social history of interdisciplinarity in my current research project, *Undisciplining Knowledge: Pursuing the Dream of Interdisciplinarity*, contrasts with most writing in this area. It begins with the argument that interdisciplinarity is a central part of the historical process of the making and ongoing reshaping of modern disciplines since at least the mid- to late nineteenth century. Contrary to many notions, interdisciplinarity is inseparable from the disciplines, neither a rejection nor an opposition or circumvention, neither an end run nor an end point or end game. Nor is it primarily a post-World War II or more recent development as implied by Barton, Street, or many others. *Undisciplining Knowledge* seeks to demonstrate historically that the organization, structures, production, and dissemination of knowledge around universities, disciplinary departments, and research institutes, especially in the United States and the modern West more generally, give rise to interdisciplinary efforts and movements across the expanse of fields over time. Interdisciplinarity is a (historical) construct that varies by field and also by time, place, relationships, and circumstances. As educational and research institutions have changed over time and space, so too have interdisciplines and disciplines in various ways that demand to be charted comparatively. Literacy studies’ relatively recent rise and race for recognition is a case in point. But so too are the important historical developments that are often obscured. Among the many contributions from recent studies in the history of literacy are important lessons for the present and future (Graff 1995a, 1995b).

Although their presentation requires a lengthy critical discussion, even a short listing of the variety of major explanations/descriptions found in the literature, ascribed for the construction of interdisciplines, suggests

the breadth, depth, and complicated, contradictory nature of the process, structures, dynamics, and narratives. They include evolutionary progressive, functional, structure and process, market-driven, specialization, novelty, fission or fusion, collective movement, boundary-making and maintaining, conflict, internalist and externalist, among other models or approaches. They are suggestive, but none is particularly historical or comparative.

Literacy studies, and interdisciplinary studies, can be better understood with more attention to a longer chronological span of intellectual and socio-cultural development and a broader, more dynamic focus on its place and play among a wide array of disciplines and institutional locations. (Subfields in disciplines or interdisciplines that deal with literacy include reading, writing, child and human development, cognitive studies, comparative and development studies, and communication or media studies.) “External” factors and developments (social, cultural, political, economic)—that is, external to the normal workings of a discipline or field, such as wartime needs, consequences of global cross-cultural contacts and colonialism, “discovery” of new social problems—combine, often contradictorily, with shifting currents within and across disciplines. They may then stimulate changing views that, in the context of universities and their organization of knowledge, lead to criticism, different assertions, and sometimes institutional articulations both within and outside the “boundaries” of departments or divisions that take the name of interdisciplinarity.¹⁷

A more complete and useful approach to literacy studies, one that also deepens our understanding of interdisciplinarity, begins no later than the 1920s and 1930s (as above). It looks back carefully to the period spanning the mid-eighteenth century through the early twentieth century. Ideally, it embraces a longer (if briefer) glance back to the Renaissance and also classical antiquity. There it locates in historical context the dynamic building blocks for our expectations, understandings (including theories and policies), and institutions that culminate in modern literacy(ies) and their travails, and literacy studies.

Modern arrangements and judgments grew from the foundational (if sometimes contradictory) currents of Enlightenment emphases on human malleability, perfectionism, learning capabilities, environmentalism, and

institutionalism. They were partly reinterpreted by Romanticism's deeply divided recognition of the power and significance of the "other," the alien or primitive within ourselves and in "strangers," both within the modernizing West and in "newly discovered" regions. Questions about language and order lay at the core of both. The beginnings and foundations of literacy studies also lay in "civilization's" confronting many "Wild Child[ren]" (*enfants sauvage*), noble or savage; South Sea islanders who confronted explorers; missionaries (whose work in creating alphabets and written languages initially to "translate" the Bible in aid of their proselytizing is fundamentally a part of literacy studies and linguistics); colonizers and colonists. They all deployed early (and later) modern notions of Western literacy and its expected influences in their efforts at expansion, "conquest," and domesticating and elevating the primitive and different.

Charles Dickens and Henry Mayhew taught that the "other" was also close at home, especially in the swelling cities of the "modernizing West," sharing the difference, deviance, and deficiency of those much further away. Those nearby could be more threatening than those farther afield. In anthropology and the arts, the primitive and the oral were grounds for celebration at times, compromising wholly positive associations of literacy and negative associations of illiteracy. Strong currents from the Enlightenment and Romanticism intertwined, sometimes contradicting but sometimes supporting expectations about progress and modern development.¹⁸

From earlier eras, including the Renaissance and classical antiquity, came, haltingly at first, the conviction that writing, and the reading of it, were, at least in some circumstances, superior to other means of communication, especially the oral. On one hand, this was a functional development, but, on the other hand, personal and eventually collective cognitive change might follow, some persons of influence thought. So commenced *early* literacy studies. The first general uses derived from the needs of religion, government, and commerce. That was followed slowly by a faith in the powers of formal instruction in places called schools, initially for the relatively few, primarily boys. Some agendas stressed socialization for citizenship and its correlates; others emphasized literacy in terms of useful or necessary practices or abilities. Over time, places for instruction expanded to include many more and to focus especially on the young. In

these formulations, literacy stood at the centre of training that embraced social attitudes and control, and civic morality, along with at least rudimentary intellectual practice, and training in skills for productive contributions to economy, polity, and society. The tools began with simplified alphabets that helped to link signs and sounds to words and sentences, and expanded to include paper, pens, and various means of reproducing and circulating texts that were first handwritten and later printed. The superiority of technology and the inferiority of the “unlettered” stood as certainties, framing constructions of literacy. Literacy’s story, right or wrong, came to occupy the centre (though often implicitly) of the rise of civilization and progress in the West.

These elements became inseparable as they joined capitalism’s relentless efforts to remake the world—and the word, written or printed—in the image of the marketplace and its institutions (with other images), and to remake the young, in particular, for the strange new world. They mark, and also serve as representations of, literacy in the traditions that emerged to study and understand literacy from the Renaissance (or earlier) forward. Not surprisingly, the development and institutionalization of disciplines in the nineteenth- and twentieth-century Western university incorporated the understandings of literacy to which they were the heirs, especially but not only in the social sciences—anthropology, linguistics, psychology—and the humanities—classics, history, literature, philosophy, politics. Early relationships resist efforts at change. The resulting disciplinary fragmentation, as discussed in this essay, not only contributes to efforts to build interdisciplinary literacy studies, but also limits them. They also underwrote the many contradictions—what I call “the literacy myth,” for one—in the place of literacy in Western cultures, and the lives of many persons yesterday and today.

Interdisciplinary possibilities and limits on opportunities stem from the interplay within and across what I call “disciplinary clusters.” (The humanities, arts, social sciences, and basic sciences constitute major disciplinary clusters.) No less important is the sometimes very dynamic interplay—critical and complementary—between disciplines. Of this, the key disciplines of anthropology, linguistics, and psychology provide powerful examples. Among them, orality and oral literature, everyday and privileged writing practices, the ubiquity of “reading” across multiple media,

and the search for cognitive and noncognitive “implications” of literacy are telling. So, too, is literacy’s active presence as values, ideology, and both cultural and political capital. Destabilizing times can become opportunities to advance or to fall from favour for disciplinary approaches, and moments for interdisciplinary movements.¹⁹

For literacy studies, across the past two centuries at least, one of the most powerful forces has been the fear, and often the certainty, that literacy is declining (or not rising), and that with it, families, morality, social order, progress, and socio-economic development are also declining. This accompanied one of the most momentous transformations in the history of literacy and its study: from a “pre-modern” order in which literacy was feared and (partly) restricted, to a more modern order in which illiteracy (or literacy gained outside of formal institutional controls) is feared. When taken comparatively, and further heightened by international conflict or competition (most famously perhaps in France’s defeat by Prussia in the 1870 Franco-Prussian War), social disorder and division, international migration of “aliens,” declining fertility and rising mortality, failure for “human capital” to grow, and similar circumstances, literacy levels become flashpoints for study and action to reverse the dreaded tide. Schools and popular culture attract attention which has in turn the potential to propel disciplinary action and conflict, and, sometimes, interdisciplinary efforts. The apparently endless “crisis” of literacy in the mid- to late twentieth century is inseparable from Cold War anxieties, global economic restructuring and collateral social and cultural change, communicative and media transformation, and both new and persisting inequalities. Seemingly unprecedented “social problems” become calls for and stimulants of interdisciplinary “solutions.” Literacy’s role as either or both cause or consequence is very tricky to unravel, a complication in literacy studies’ development.

For literacy studies, these complications often impinge on one or another of the “great divides” prominent among approaches that see literacy—almost by its very “nature”—as universal, unmediated, and transformative in its impact. Often cited are reading or writing as “technology of the intellect,” the power of the Greek alphabet, the impact of print, cognitive shifts from writing or reading, and the like. Constructing this tradition of study and understanding was relatively uncomplicated.²⁰

In recent decades, however, others have emphasized increasingly the socio-cultural influences and contextual effects from literacy. Among the elements stressed are psychological theories, schools and other environments, families and communities, cultures of practice, and practice and use of reading and writing.

In the second half of the twentieth century, in conjunction with other disciplines and interdisciplines, literacy studies has taken social, contextual, cognitive, linguistic, and historical, among other “turns.” With the turns came the adoption of signifying French theorist “godfathers” from Lévi-Bruhl and Lévi-Strauss to Pierre Bourdieu and Bruno Latour. These developments at times interact with and deepen conflicts among disciplines and promote interest in interdisciplinary resolution.²¹

Literacy studies’ paths are revealing. Recent years witness an emphasis on the everyday and the practical, including the concept of practice itself. This has led to an effort at overturning the dominance of grand theories that stressed the universal importance of the written over the oral, the printed over the written, the literate over the unlettered and untutored. Practice and context, explored in a variety of contexts and traditions, replaced presumptions of the unmediated powers and advantages of literacy. In part, literacy studies’ emerging interdisciplinarity stemmed from perceptions of the inadequacy of earlier conceptualizations and presumptions, the search for new methods and sources on which to base a major revision, and reactions to it.

Successful construction of recognized interdisciplines is *not* the most common consequence of developments and changes in the disciplinary process. Although success or failure can be hard to determine, literacy studies is no exception. Some observers refuse the interdisciplinary mantle to literacy studies because of a general absence of departments of literacy studies, despite many centres and programs.²² Adding to the complexity and grounds for confusion is the fact, on the one hand, that interdisciplinarity can be strikingly different, say, in the sciences or technology fields than in the humanities or social sciences.²³ On the other hand, disciplines and interdisciplines are not synonymous forms of organization or production. They differ considerably from each other, both within and across disciplinary clusters, from history to physics or the arts. Consequently, while most programs and the occasional department

of literacy studies are often in colleges of education, there are also programs, concentrations, or definite interests in the social sciences and humanities, with either or both institutional location or intellectual foundation. A few programs reach for the mantle of science.²⁴ In other words, understanding literacy studies calls for a critical perspective derived from interdisciplinary studies along with a comparative and historical view. At the same time, literacy studies provides a valuable case study that tests our understanding of interdisciplinarity.

Claims and conflicts about interdisciplinarity are almost as frequent and strong as those about literacy(ies). In a mix of recurring and current issues, intellectual and professional issues associated with the organization and production of knowledge prompt periodic debates over the promises and perils, including the faddishness and, of course, the definitions of interdisciplinarity. The spectrum is wide but not straight. It embodies both light and darkness.²⁵ For example, Guy Michaud (1972, 285) asserts that interdisciplinarity “is a way of life. It is basically a mental outlook which combines curiosity with open-mindedness and a spirit of adventure and discovery,” while Georges Gusdorf (1977, 580) declares: “The appeal to interdisciplinarity is seen as a kind of epistemological panacea, designed to cure all the ills the scientific consciousness of our age is heir to . . . [although] even those who advocate this new image of knowledge would find it hard to define.” On the other hand, Marc De Mey (1982, 140) states: “Interdisciplinarity is an ambivalent term in science. . . . For practical problems it is considered valid and unavoidable but for theoretical purposes in science, interdisciplinarity is handled with great caution and even with suspicion.” Others see an affinity between the sciences and interdisciplinarity (Weingart and Stehr 2000).

Neil Smelser (2004, 52) writes more expansively:

My own sense is that this positive aura—which has a staying power even though the positive consequences of interdisciplinary activity remain unknown—retains its appeal on account of its connection with quasireligious and quasicommunal imagery. Interdisciplinarity is powerful because it promises to be an antidote to the disenchantment with specialization and fragmentation of knowledge, and because it

evokes an unspoken but persistent romance with the idea of the unity of knowledge. . . . Interdisciplinary thus bears some of the marks of a utopian ideology and social movement.

Smelser continues, "On closer examination, moreover, interdisciplinarity reveals a darker, more negative side. We smile on it in principle and frown on it in practice. Our reward system discourages it."

Then, there is the evangelical chapel of transdisciplinarity. The First World Congress of Transdisciplinarity (Portugal 1994) adopted a charter with fifteen articles "which comprises the fundamental principles of the community of transdisciplinary researchers, and constitutes a personal moral commitment, without any legal or institutional constraint." The charter (Charter of Transdisciplinarity 1998) enunciated a "transdisciplinary vision."

Claiming a high middle (if slightly evasive) ground, Marianna De Marco Torgovnick (1996, 282) avers: "Interdisciplinarity has no promises to keep and none to break. It is not a mantra or a magic potion. Work that cuts across areas of study is as good or as bad as the individual books and articles that do it. Certainly, working across disciplines is not the only or even always the best way to do scholarly work." Whereas some see it as the easy way out of hard problems, English and sometimes law professor Stanley Fish (1989) famously declared, "Being Interdisciplinary Is So Very Hard to Do."²⁶ Across the steep discursive mountains and deep canyons between disciplines and interdisciplines, there is room to play, including the spaces occupied by literacy studies. That is another part of the paths to and from interdisciplinarity.

That literacy studies and interdisciplinary studies have a number of attributes in common raises important questions about these distinctive fields and their relationships. Both stimulate strong sentiments of allegiance and dissent. Both are linked inextricably with disciplinary "boundary issues."²⁷ Arguments for and against interdisciplinary programs mirror the sometimes utopian or otherwise extraordinary dreams that interdisciplinarity represents to many inside and outside the academy, but to others the dystopian nightmares. Paralleling claims about the powers of literacy and imperatives of literacy studies, they are long on repetition of strong

claims, or their denial. They are short on focus, key distinctions and qualifications, and historical, temporal, and institutional context. Despite significant and sometimes urgent questions and issues, and an identifiable body of writing (often either polemical or technical), interdisciplinarity is poorly grasped and often misunderstood. So too is literacy studies. What at first appear to be substantial literatures, on closer inspection reveal themselves riven by a distorting, disorienting, and exaggerating positive or negative discourse about multi-, pluri-, inter-, and transdisciplinarity, even anti- or adisciplinarity.²⁸

Magnifying and denying myths mark both interdisciplinary studies and literacy studies.²⁹ Conceptual, evidentiary, and interpretive contradictions complicate efforts to understand them. Most views are also truncated chronologically to a constricting association with the post-World War II era, often later for literacy studies, the 1970s to 1980s, which is too late.

Barton's and Street's emphasis on "over-simplistic psychological models" shifts attention away from the *rediscovery* of frequent illiteracy among soldiers in the West, and its powerful relationship to social class, race, and geography in the United States and elsewhere. It also distracts from observing how the understanding and promotion of literacy for development became a weapon in the Cold War between the Western and Eastern blocs, regarding the foundations of democracy, international competition, and both the theories and data to support the presumed relationships.

At issue was the reconstruction of postwar Germany, Japan, and the Soviet Union as more (or less) democratic, and the roles that education and print—textbooks and beyond—should play. The future of democracy in the West itself was also at stake, threatened by "the authoritarian personality" and more. No less important was the future of the lesser-developed, or underdeveloping nations, as they were represented. Political ideology and attitudes mattered, and literacy and schooling commanded attention as vehicles. The search for modern personality types helped to shift ostensible attention away from the Western and especially the American need for markets and materials, inseparable from political allegiance. Modernization theory became the banner for Western democracies in their struggles with communism. Consequently, they strove to export

plans for literacy *and* attitudes—including school systems and print materials—along with other goods and services. Studies like Daniel Lerner’s (1965) *The Passing of Traditional Society* or the more statistically oriented *Becoming Modern* by Inkeles and Smith (1974) used literacy among their key variables. Their measures were weak; findings and arguments were often unpersuasive. They also confused attitudes with skills, much as they did with their concepts of development, including political development. Literacy studies was socially relevant and worth a struggle, as literacy took its place in a privileged list along with democracy, communications, economic productivity, cultural development, social mobility, and social order and stability, in sometimes contradictory connections. For literacy studies, these relationships were not new; nor were perceptions that literacy was at issue in threats to civilization in the West. Although a boost to literacy studies, interdisciplinary literacy studies lacked, and still need, a historical foundation.

For interdisciplinary studies in general, the biological *or* physical sciences or the behavioural sciences or cognitive science stand on top, slighting the humanities, historical and social sciences, and many professional programs.³⁰ For literacy studies, emphasis and a struggle for dominance come from anthropology, psychology, and linguistics, amid confusion over the proper disciplinary (or interdisciplinary) place for the critical (re)consideration of reading and writing to occupy. The search for understanding and applications to the contemporary literacy scene within the domain of Education has mixed results and raises other issues regarding location and disciplinary status or power.

The lines between disciplines and across them are less clear than we are trained to expect. Perceived overlap leads to competition as well as collaboration. There are linguists, for example, in anthropology, psychology, English, and education departments. English has long claimed (if somewhat incompletely and inconsistently) a special relationship with reading and writing via tutelage and practice, but more formally through subdisciplines like Rhetoric and Composition. During the past five to ten years, RC programs, as they are called, began to rename and sometimes reframe themselves as RCL—“L” for literacy. This act represented what I call “the lure of literacy” for currency and relevance, and enrolments and funding. English and literature departments are also (at least sometimes) home to

other elements of interdisciplinary literacy studies, including oral literature, folklore, popular culture, graphic literature, film, and linguistics, as well as variations along the lines of writing and reading. Seldom do they work closely together or build interdisciplinarity within their space.

At Ohio State University, since 2004, my own work focuses on constructing what I call the LiteracyStudies@OSU initiative, an experiment in campus-wide interdisciplinary program development in theory and practice.³¹ (See Graff 2011, chap. 8.) The program's multi-level and multi-centred hallmarks are historical, comparative, and critical. These building blocks integrate a series of public programs, faculty and graduate student seminars in literacy and the history of the book, a Graduate Interdisciplinary Specialization or minor open to all graduate students, and other student, faculty, and staff activities. Our cross-university breadth, with primarily horizontal connections, is unprecedented and path-breaking. Faculty, staff, and students across OSU's eighteen colleges (with more than ninety graduate programs) have participated in one or more programs. Informal and formal linkages dot the huge campus. Worthy of attention in its own right, both the successes and the constraints on interdisciplinary development are provocative.³²

LITERACY STUDIES AND INTERDISCIPLINARY STUDIES

Interdisciplinary literacy studies continues to struggle with foundational dichotomies—the making of myths—between oral and literate, writing and print, print and electronic, and literacy as transformative—that continue to guide and divide opinion and orient studies. Consequently, the long-standing neglect of rich research on orality and oral literature is almost as much a mark of the limits of many interdisciplinary endeavours as of the power of disciplines. The proponents of the New Literacy Studies have not reclaimed Lord or Parry or Vygotsky. The persistence and importance of orality is regularly rediscovered across disciplines. The heterogeneity of constructions of the cognitive domain also plagues literacy studies, another instructive matter of connections.

More generally, we confront the antimonies of interdisciplinary studies. They are mirrored in literacy studies. To begin, there is the swamp of

confusing, conflicting, contradictory definitions. They come in many versions, including disciplinary, multidisciplinary, pluridisciplinary, interdisciplinary, and transdisciplinary; indiscriminate interdisciplinarity (hodge-podge, cafeteria-style), pseudo-interdisciplinarity, auxiliary interdisciplinarity, composite interdisciplinarity, supplementary interdisciplinarity, and unifying interdisciplinarity. Or non-disciplinary, adisciplinary, antidisciplinary. metadisciplinary. supra-interdisciplinary, omnidisciplinary, trans-specialization, and postdisciplinary. Leaving aside the transcendent disciplinarity (that is, those *beyond interdisciplinarity*), the distinctions between interdisciplinary and non- or adisciplinary blur disturbingly. The unceasing proliferation of hyphenated-disciplinaries is silly, even funny, but its negative impacts do not stop there. To too many persons, the number of disciplines somehow brought together is the magic potion, rather than such alternatives as the nature of the inquiry, the elements of disciplines brought together, or the questions asked.³³ (See appendix.)

For many interested people, interdisciplinarity represents synthetic and integrative general education (sometimes called IDS, for interdisciplinary studies) in major clusters of the curriculum or the search for unification across broad realms of knowledge. This is especially but not only the case for those who claim the mantle of science as a foundation for interdisciplinarity (to a lesser extent in philosophy or literature) (Klein 1990, 1996, 2005). At the same time, interdisciplinarity to other observers and practitioners is basic and foundational, while to yet others it is specialized and advanced (sometimes termed IDR, for interdisciplinary research). For the first group, instruction in general education takes a higher priority; to the second, sophisticated research and the difficult interpretation of its results rules. Literacy studies at times seems to aspire to the former. One traditional narrative of (Western) civilization is logocentric, with literacy as engine of modernizing changes. But literacy's study and understanding tends to contribute more to the latter, however ironically or contradictorily. This is the advanced track, more closely aligned to specialization or fragmentation of knowledge, not general education or unification. Claims of interdisciplinary synthesis or integration are often asserted, yet they need to be read within specialized research areas.

Striving for recognition, literacy studies occupies ambiguous ground, both disciplinarily and interdisciplinarily. In part, this is a question of location. But it is also a question of status. The “rise” of literacy studies, part of its generally successful emergence and development (within limits), contributes to its presence in many academic departments and disciplines. This holds for education, the social sciences, and the humanities, but usually to a lesser extent also in the sciences, medicine, public health, the law, and business.³⁴ This pattern is problematic in some critical respects. In the pantheon of disciplines, centres of interest in literacy studies do not usually rank highly.³⁵ That the study of literacy, for good reasons, is often seen as basic or elementary does not boost its standing. By reputation, it is often viewed as inseparable from schools or colleges of education.

Mainly in such schools has literacy studies achieved institutionalization as an interdisciplinary unit, in the form of departments, degree programs, or areas of concentration often under the name/rubric of “Literacy, Language, and Culture,” sometimes complemented with a research, outreach, or service centre.³⁶ Both “literacy” and “interdisciplinary” at times become promotional labels: new, relevant, sexy—in academic terms—and appealing for applied and practical reasons to citizens, governments, and corporations. Perceptions of crises or at least serious problems with popular literacy abilities add to this mix. Such promotion, which is less problematic in professional schools, aims to benefit programs and their home departments, colleges, or universities. It also can provoke negative reactions from more traditional faculty in the arts and sciences. A sometimes unstable mix of sexiness, practicality, and applied “science” paves certain paths to interdisciplinarity, with ambivalent (or negative) responses by others within universities.

Of course, literacy studies is often an active presence in departments that are home to the disciplines most often identified as predominant contributors to the New Literacy Studies or literacy studies more generally. These are the social sciences of anthropology, linguistics, and psychology. At one time or another, each of these disciplines has claimed the status of a science, applied if not always “pure” or “basic.” Psychology, followed by linguistics, exhibits the greatest ambitions, with strong interests in reading, writing, development, and cognition. All three stress contemporary

and sometimes comparative relevance, usually reserving the strongest claims for the perspectives, methods, and theories of their own discipline, even when also proclaiming their interdisciplinarity. Practitioners in these fields often occupy central places in interdisciplinary literacy centres, programs, or concentrations in Education.

That interdisciplinarity is often deemed best-suited to “solving problems” that fall outside the domain, traditions, or intellectual resources of any given discipline is commendable to some but damning to others. This is no less true for literacy studies, with its strong affinities to the practical and applied. While the interdiscipline has serious interests in theory and knowledge generation about the uses and influences of literacy, social and geographic variation, or multiple literacies, practice, problem, and applied studies are very common. Barton (2001, 93) observes, “Within education, Literacy Studies sometimes supports particular pedagogical practices.”

In *Chaos of Disciplines* (2001, 134), sociologist Andrew Abbott argues that “interdisciplinarity has generally been problem driven, and problems . . . have their own life cycle. There is ample evidence that problem-oriented empirical work does not create enduring, self-reproducing communities like disciplines, except in areas with stable and strongly institutionalized external clienteles like criminology.” Abbott points toward one perspective on paths toward interdisciplinarity for literacy studies. Perhaps only with respect to Education does literacy studies have a “strongly institutionalized external clientele.” Perhaps others remain to be developed. The field of play is potentially broad. On the one hand, if Abbott is correct, there *are* opportunities for literacy studies to develop as interdisciplinary, within limits. This would build upon its dimensions that are “problem-driven.” They in turn may include larger questions of theory, comparison, connections, and even history, in addition to matters of contemporary relevance or application. On the other hand, such interdisciplines are likely to be shorter-lived, not “enduring, self-reproducing communities.” That might be a very useful, potentially liberating path.

Likening interdisciplines to disciplines, and to each other, in search of similarities, our common, even reflexive practice, may mislead more than

clarify. Interdisciplinary developments follow different paths toward a variety of institutional, intellectual, and societal ends, different timelines and lifetimes. They may prove influential without attaining the niche and continuity of disciplines. That is one of their strengths whose understanding may carry benefits. If this is, in fact, the case, it may carry powerful implications for literacy studies and for interdisciplinary studies.³⁷

APPENDIX: TYPES OF INTERDISCIPLINARITY

57 VARIETIES OR ?

UNESCO 1972

Discipline

Multidisciplinary

Pluridisciplinary

Interdisciplinary

Transdisciplinary

Source: Centre for Educational Research and Innovation (CERI), *Interdisciplinarity: Problems of Teaching and Research in Universities*, report based the results of a Seminar on Interdisciplinarity in Universities organized by CERI in collaboration with the French Ministry of Education at the University of Nice, 7–12 September 1970. Paris: Organisation for Economic Co-operation and Development, 1972.

Heckhausen

Disciplinarity

Interdisciplinarity

Indiscriminate interdisciplinarity

(Hodge-podge, cafeteria-style)

Pseudo-interdisciplinarity

Auxiliary interdisciplinarity

Composite interdisciplinarity

Supplementary interdisciplinarity

Unifying interdisciplinarity

Source: Heinz Heckhausen, "Discipline and Interdisciplinarity," in CERI, *Interdisciplinarity: Problems of Teaching and Research in Universities*, 83–89.

UNESCO 1998

Transdisciplinarity

Charter of Transdisciplinarity

Source: UNESCO, Division of Philosophy and Ethics, *Transdisciplinarity: "Stimulating Synergies, Integrating Knowledge"* (1998).

Cunningham

Boden, six types of interdisciplinarity

Encyclopaedic

Contextualizing

Shared

Co-operative

Generalising

Integrated

Source: Margaret A. Boden, "The Character of Interdisciplinarity," in *Interdisciplinarity and the Organisation of Knowledge in Europe*, ed. Richard Cunningham, 13–24. Luxembourg: Office for Official Publications of the European Communities, 1999.

Raymond Miller

Multi-disciplinary

Cross-disciplinary

Trans-disciplinary

Source: Raymond C. Miller, "Varieties of Interdisciplinary Approaches in the Social Sciences: A 1981 Overview," *Issues in Integrative Studies* no. 1 (1982): 1–37.

Louis Menand

Disciplinary

Interdisciplinary

Postdisciplinary

Antidisciplinary

Source: Louis Menand, "The Marketplace of Ideas." ACLS Occasional Paper no. 49, 2001 (available at http://archives.acls.org/op/49_Marketplace_of_Ideas.htm).

Others . . .

Cross-disciplinarity

Linear interdisciplinarity

Method interdisciplinarity

Restrictive interdisciplinarity
Problem interdisciplinarity
Border interdisciplinarity
Interdisciplinarity of neighboring disciplines
Structural interdisciplinarity

Nondisciplinary
Adisciplinary
Antidisciplinary
Metadisciplinary
Supra-interdisciplinarity
Omnidisciplinary
Trans-specialization
Post-disciplinary

Integration
Integrative
Unification
Specialization

Basic, general, foundational
Specialized
Complex

Complexity
Hybridity

Transdisciplinarity
Critical interdisciplinarity
Integrative interdisciplinarity
Disciplined interdisciplinarity

Multi-modality

NOTES

- 1 The subject of this essay, it should be clear, is literacy studies, not literacy itself. Although they are inseparable, they are not the same. My own *definition of literacy* emphasizes literacy as the ability to read—to make and take meaning—and the ability to write—to express understanding and make other communications—and their metaphors and analogies across distinct media and modes of communication.

For me, *interdisciplinarity is defined* by questions and problems and the means developed to answer them in new and different ways that are constructed or built on or from elements from different disciplines. This might involve approaches, methods, theories, orientations, comparisons, understandings, or interpretations. I emphasize the former—questions and problems, not the disciplines. . . . Or, to put it another way, interdisciplinary defined or realized comes from fashioning interdisciplinarity via method, theory, and conceptualization to form a new and distinct approach or understanding derived from or based on aspects of different disciplines. This will differ by discipline and disciplinary clusters. Interdisciplinarity is not a matter of the number of disciplines. Therefore, there is no need to “master” two or more disciplines, as more than a few pundits have asserted.
- 2 See the literature on New Literacy Studies, including Bartlett (2003b); Barton (2001, 2007; Collins and Blot (2003); Gee (2007); Lankshear (1999); Stephens (2000); Street (1984, 1993, 1998); and Street and Besnier (2004); see also Graff (1995a, 1995b).
- 3 Scott Frickel (2004, 269): “Interdisciplines are hybridized knowledge fields situated between and within existing disciplines. Like disciplines, interdisciplines are sites of institutional conflict. Their formation involves disputes over access to organizational, technical, financial, and symbolic resources, and their stabilization reflects a reordering of theoretical loyalties, epistemic assumptions, research practices, standards of evidence, and professional credibility and identity. But unlike disciplines, whose ‘maturity,’ coherence, or status within the broader academic field is often judged in terms of the strength or hardness of professional boundaries, interdisciplines maintain themselves through interactions with other fields and thus require boundaries that are *intentionally permeable*.”
- 4 Barton (2007) himself examines dictionary definitions of literacy. See also Barton (2001); Brockmeier, Wang, and Olson (2002); Collins and Blot (2003); Olson (1988, 1994); and Street (1984, 1993, 1998).
- 5 Compare with Street (1984) and with Collins and Blot (2003); see also Graff (1995a, 1995b); Lankshear (1999); and Olson (1988, 1994).
- 6 This occurs in a variety of forms and locations. In general, see Klein (1990, 1996, 2005) and Messer-Davidow, Shumway, and Sylvan (1993). For literacy studies, compare the work, cited below, of Goody and Olson with that of Street, Graff, and Barton.
- 7 See also Goody (1968, 1979, 1986, 1987); Goody and Watt (1968); Havelock (1976a, 1976b, 1982); Brockmeier, Wang, and Olson (2002); Greenfield (1972); McLuhan (1962); Olson

- (1988, 1994); Ong (1982); Tannen (1981); Cole (1996); Scribner and Cole (1981); Halverson (1991, 1992); Heath (1983); Lord ([1960] 2000); and Parry (1971).
- 8 See Goody (1968, 1979, 1986, 1987) and Havelock (1976a, 1976b, 1982); and compare with Harris (1989) and Clanchy ([1979] 1993). In addition, see Clark (2007). Post-World War II studies include Lerner (1965) and Inkeles and Smith (1974). See also Olson (1994).
 - 9 Goody and Watt's "The Consequences of Literacy" was first published in 1963 and was subsequently included in *Literacy in Traditional Societies* (1968). Goody's introduction to this volume was titled rather vaguely, "The Implications of Literacy." For tensions in the field, see Goody (1968) and Halverson (1991, 1992); on New Literacy Studies in general, see Graff (1979, 1987, 1995a, 1995b).
 - 10 See Cole (1996) and Wertsch (1985). Steve Witte also worked for their rediscovery.
 - 11 Lerner (1965); Inkeles and Smith (1974). Among others, see Scribner and Cole (1981); Heath (1983); and Street (1984). See also McLuhan (1962) and Ong (1982).
 - 12 See Street and his critics, namely Bartlett (2003); Brandt and Clinton (2002); Collins and Blot (2003); Collins (1995); Maddox (2007); Reder and Davila (2005); Stephens (2000). Neither Barton nor Street provides a historical perspective on the relevant fields; their focus can be very narrow—a sign of striving for distinction as interdisciplinary. At times, they seem to presume the dominance of linguistics or anthropology that is implied.
 - 13 See, for example, the syllabus for ENG 750, "Introduction to Graduate Studies in Literacy." This is a required core source in the Graduate Interdisciplinary Specialization at Ohio State University. For studies of disciplines, see Klein (1990, 1996, 2005) and Messer-Davidow, Shumway, and Sylvan (1993); see also Abbott (2001); Allen (1975); Cole (1996); Dogan and Pahre (1990); Frank (1988); Frickel (2004); Kaestle et al. (1991); Lankshear (1999); Lenoir (1997); Peters (2005); Smelser (2004); Smith (2006); and Weingart and Stehr (2000).
 - 14 See Graff (1995b). There are excellent examples in history, economics, education, and rhetoric and composition.
 - 15 See, for example, Clanchy ([1979] 1993); Heath (1983); Barton et al. (2007); and Barton and Hamilton (1998).
 - 16 See Pattison (1982); see also Graff (1991, 2010), and some of the responses to that work.
 - 17 Not discussed here but important are issues of interdisciplinary activity and establishment *before* interdisciplinary is recognized and at least struggles to be institutionalized within universities. The accepted narrative of origins takes a supposedly early use of the word "interdisciplinary" at a meeting at the Social Science Research Council in New York in the late 1920s as the initiation of its arrival on the academic scene. See Frank (1988).

While being aware of the dangers of anachronism, we need not wait so long to look for and find recognizable interdisciplinarity at play. Important examples include the fields of biology, genetics, biochemistry, and efforts, say, in sociology in the nineteenth century and the mid-twentieth. We must beware of romanticizing pre-modern university organization of knowledge as interdisciplinary or "before the fall." Non-disciplinary does not equal interdisciplinary.

- 18 On non-literate and preliterate, see Duffy (2007).
- 19 Good examples are the field of education, and the long-standing and persistent conflicts among those who endorse reading's and writing's special affinities with cognitive development and "cultures" of reading and/or writing, as opposed to those who emphasize social context and practice. For recent efforts to go beyond a dichotomy, see Brandt and Clinton (2002) and Collins and Blot (2003).
- 20 For more complications, see Brockmeier, Wang, and Olson (2002); Olson (1988, 1994); Goody after the 1970s; Halverson (1991, 1992); Kaestle et al. (1991); Graff (1995a, 1995b); and Graff and Duffy (2007).
- 21 See and compare, for example, the work of Goody and Olson with that of Cole and Street. See also Brandt and Clinton (2002).
- 22 Alternative locations for literacy studies include departments—disciplinary and interdisciplinary—centres, programs, committees, degrees, subgroups in departments or colleges, and so on. PHD programs include Language, Literacy and Culture at UC Berkeley in the Graduate School of Education; Language and Literacy Studies in Education at UC Santa Cruz; PHD in Literacy Studies in the Department of Literacy Studies, Education, Hofstra University; PHD in Language, Literacy, and Culture, Education, University of Iowa; PHD, Department of Counseling, Leadership, Literacy, and Special Education, Lehman College, CUNY (with a link to disabilities); Language and Literacy Education Concentration, Rutgers Graduate School of Education; PHD in Culture, Literacy, and Language, Division of Bicultural-Bilingual Studies, College of Education and Human Development, UT San Antonio; Graduate Program Area of Study, Literacy Studies, Department of Curriculum and Instruction, School of Education, University of Wisconsin–Madison.

In addition, graduate minor in literacy and rhetorical studies, University of Minnesota; Graduate Studies in Composition, Rhetoric, and Literacy Studies, MA and PHD, University of Oklahoma; PHD in Rhetoric, Composition, and Literacy, Ohio State University; also at OSU, a Graduate Interdisciplinary Specialization in Literacy Studies open to all graduate students at OSU. For this program, see Graff (2011), ch. 8.

Examples in detail:

Reading/Writing/Literacy, in Language and Literacy in Education Division: University of Pennsylvania. "The RWL Program is guided by four principles. First, it is interdisciplinary because literacy, language and culture are studied from sociocultural, cultural, psychological, historical, linguistic, and literary perspectives. Second, the program is inquiry-based, intended to raise questions about the relationships among theory, research, policy and practice. Third, it focuses on diversity and on urban settings, and the contexts of different schools, communities, families and cultures. Fourth, educational institutions are sites to work for social justice, transformation and equity."

A new Interdisciplinary PHD in Literacy Studies, 2008, Middle Tennessee State University, claims interdisciplinary breadth and basis in science. According to an 30 April 2008, press release: "School psychologists, speech-language pathologists, reading

teachers, classroom teachers and school administrators at all levels will be among those enrolling at MTSU's new PHD in Literacy Studies degree. The program will come face to face with why the National Assessment of Education Progress consistently shows that an average of four out of ten children fail to read at grade level by fourth grade."

"The interdisciplinary doctorate is based on the idea that narrow expertise in a single area does not equip graduates to understand the many factors that support successful literacy. The new doctorate is a first-of-its-kind partnership that has emerged from the Center for the Study and Treatment of Dyslexia at MTSU, a hands on learning lab that may be the only one of its kind in the nation. The Dyslexia Center is a unit within the School of Education and Behavioral Science where professionals with different backgrounds work together to improve educational outcomes for children with dyslexia. The doctorate has been shaped and will be governed by faculty representing several academic departments: educational leadership, elementary and special education, dyslexic studies, psychology, sociology, English (linguistics) and communication disorders."

Some are research, some are teaching; some are other practitioners.

- 23 In the humanities and social sciences, there is nothing like the hybridity or conjoint compounding of biochemistry and other compounds linking biology, chemistry, physics, for example, or the development of technical fields across or between science and engineering.
- 24 The Middle Tennessee State University doctoral movement is based on shifting from dyslexia to Literacy Studies, with the claim to science both implicit and explicit.
- 25 For example, see Klein (1990, 1996, 2005); Messer-Davidow, Shumway, and Sylvan (1993); and Weingart and Stehr (2000).
- 26 See also the quotation from Julie Stone Peters that begins this essay.
- 27 Increasingly, I have doubts and discomfort about the usefulness of the notion of "crossing boundaries" as a guideline, a mode of discourse, or a governing metaphor. There may be a necessary amount of permeability on the edges or perimeter of most disciplines, and that may well be part of the nature or order of disciplinarity itself. Boundaries are so slippery that caution is the best practice. To focus on boundaries perhaps also unduly limits the interactions and relationships open to interdisciplinarity.
- 28 There is a need for a sophisticated and comparative study of the discourse of interdisciplinarity. Many of us comment on it but there is little deep probing. This is a trickier problematic than it is often expected to be.
- 29 See Graff and Duffy (2007). See also, on the one hand, Goody in general and Olson (1994); and, on the other hand, Street, Barton, and also Halverson. More or less in between are Collins and Blot (2003); Brandt and Clinton (2002); and Graff (1995b).
- 30 This is a complicated issue and well worth study in its own right.
- 31 For LiteracyStudies@OSU, see <http://literacystudies.osu.edu/>. See also my essay "Literacy Studies@OSU in Theory and Practice," presented to the Conference on College Composition and Communication annual meeting, New Orleans, 2008; Graff (2011), chap. 8.

- 32 That LS@OSU resides in the English department (within the College of Humanities, and also in the Institute for Collaborative Research and Public Humanities) is partly a matter of chance and partly one of strategic thinking. It is not an outgrowth of disciplinary attributes or affinities. (No more, that is, than that our only major public conflicts are with the College of Education and Human Development, who claimed “ownership” of literacy.) Appropriately, the Office of Academic Affairs declared that literacy is a university-wide matter. The lessons for interdisciplinary literacy studies are ambiguous. A stable base with sufficient resources, wide-ranging goals, good advisors, interested and varied audiences and potential participants, and lots of energy may be more important than which disciplines lead and which ones follow. That LS@OSU is led by a social historian is probably more important. See Graff (2011), chap. 8, 141–78.
- 33 See above, Fish (1989); Smelser (2004); and Dogan and Pahre (1990).
- 34 Science seems to have its own path(s) to interdisciplinarity. See Smith (2006) and Weingart and Stehr (2000), among others. As suggested by the statements in support of or in opposition to interdisciplinarity quoted earlier, some see science as allied closely, even fundamentally connected, with at least some forms of interdisciplinary. Others find it firmly opposed or resistant. The contradictions evoke the antinomies of interdisciplinarity as they relate to disciplinary clusters. Natural science is also home to such conjointly constructed or compounded interdisciplines as biochemistry and other compounds linking biology, chemistry, physics, and, recently, technology fields. The social or human sciences lack that kind of compound.

Interdisciplinarity in biology, for example, looks and proceeds, and has contributed historically, very differently than interdisciplinarity in history or anthropology or geography. Historian of biology Garland Allen (1975) suggestively calls twentieth-century biology itself “a convergence of disciplines.” On disciplines in science, see Lenoir (1997). Similarly, when social scientists and natural scientists talk about laboratories and experiments, what they have in mind and what they expect to happen there is likely to differ greatly. Replication in the social sciences shares more metaphorically than materially with replication in natural science. This is part of common confusion with respect to interdisciplinarity, and perhaps disciplinary practice, meaning, discourse, location, and evaluation across clusters.

- 35 The sense of an implicit contradiction here is very real.

In addition, the accurate measurement of literacy levels with “hard” data is a perennial quest but probably an impossible dream. That, of course, doesn’t limit generalizations or judgments. Research in different dimensions of literacy studies proceeds very differently. Psychologists, including “cognitive scientists,” and economists, in particular, seek the status of science within the domains of reading and writing as cognition for the former, and “human capital” for the latter. They design their research to construct numerical data, often conducting experiments. Disability researchers increasingly join them. Discourse studies, ethnographies, and case studies of literacy practices, written or recorded testimonies including life histories, and

other studies of the acquisition, uses and value, impact, or ideologies of reading and writing, quantitative or qualitative, occupy other researchers across the human and social sciences, including education and professional studies. Each of the two divisions constructs its vision of interdisciplinarity in accord with these distinctions.

The imprecision of literacy's definitions and measures adds a certain vagueness that may facilitate its general appropriation for many incommensurate ends (for example, as one of a number of factors in a statistical manipulation, say, to explain economic growth or fertility levels). At the same time it counters efforts to gain higher marks for the field when compared to other research of a more scientific or prestigious bent. Literacy studies has seen limited development in neuroscience and the more experimental domains of cognitive science, despite proclamations of their great value. Studies of disabilities and deficits are more common.

Another sign of literacy studies' emergence with limits on its status follows from the ubiquity of literacy as a factor—a “variable,” independent or dependent—commonly employed in a wide range of studies across disciplines. Imprecision combines with a general but typically vague sense of its actual importance to simultaneously encourage the use of literacy data inconsistently, sometimes as indicators of schooling, training, or skills, but also with respect to attitudes, values, morality, or experience, symbolically or materially. Sometimes expressed in terms of “human capital,” the answer to the basic question “What does it mean to be literate?” is seldom satisfying. Yet, the simple fact that both notions and theories of civilization, progress, development, modernization, and so on, include literacy among their ingredients enhances its appeal despite the limitations. See Graff (1991, 1995a, 1995b, 2011) and Graff and Duffy (2007).

- 36 The order of the terms Literacy, Language, and Culture and the acronyms varies from program to program, regarding the place, for example, of anthropology, linguistics, or psychology.
- 37 That this constructive consequence is not literacy's alone is suggested by the history of nanotechnology and perhaps materials science more broadly. I plan to consider that in *Undisciplining Knowledge*.

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PART THREE • PEDAGOGY

13

Teaching and Enjoyment *A Lacanian Encounter with the Master Signifier*

PAUL NONNEKES

I will begin with a particular claim, namely, that teaching should produce enjoyment and not pleasure. Why this distinction? Allow me to start with a personal anecdote. Before I came to teach in the MA program in Integrated Studies at Athabasca University I taught undergraduate sociology for many years. One of my tasks was to teach theory to second-year undergraduates. And after having taught theory to hundreds of students, I have come to the conclusion that you tend to have two very different types of students enter your theory classroom.

As I am sure you are aware, second-year undergrads have a difficult time reading theory. The students divide, though, on how they orient themselves to this difficulty. One group of students does not find this reading experience enjoyable at all. They liked their introductory sociology textbook, where knowledge was simply laid out for them, where all the work of interpretation was already performed and explained in easily digestible forms. In short, they viewed their textbook as a type of security blanket, protecting them from the confusing and bewildering world of knowledge. They expect that kind of textbook in their theory class as well,

and are quite annoyed if it is not provided them and they instead have to read, undigested, a primary source from Marx or from Hegel.

In my view, this student is oriented toward what I am calling pleasure. In psychoanalytic terms, this is the pleasure of the imaginary ego, whose existence is predicated on taking any tension in experience and reducing it so that what is produced is a feeling of harmony and a sense of continuity. Freud calls this the pleasure principle, but it has also been referred to as the constancy principle. Thus, the student seeking pleasure is seeking to reduce the confusion and difficulty he or she is having in reading Marx or Hegel to something manageable and easily comprehensible. So they demand that either you provide them with a secondary source that does that managing for them or you perform the task of management in the classroom.

There is another group of students, though, perhaps not as large in number as the first group but still significant, who find reading complex, difficult texts enjoyable. They find it stimulating and interesting that things don't make sense right away. They are excited when, after having gone through the selection of theory three times (and you say again and again to students that they probably have to read it three times) that certain insights and intuitions of meaning start coming their way in relation to the text. In short, these students are, to my mind, oriented toward enjoyment.

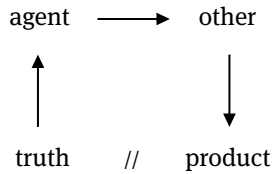
It is the topic of enjoyment and teaching that I want to address here. I want to work through some sections of Lacan's Seminar XVII (1969–70), *L'envers de la psychanalyse* (The Other Side of Psychoanalysis), in order to gain some understanding of enjoyment as opposed to pleasure. This will involve, first of all, working with Lacan's four discourses.

THE FOUR DISCOURSES

The Positions

There are four positions:

- (1) *agent* – someone acting
- (2) *other* – who one is acting with
- (3) *product* – that which is produced from the action
- (4) *truth* – the driving force of the action



The Terms

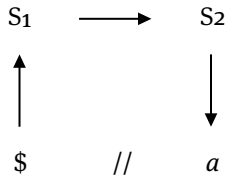
The four positions always stay the same in the four discourses. The difference occurs in the terms (specifically, in the rotation of the terms):

- (1) S1 – the master signifier, the signifier that tries to fill up the lack
- (2) S2 – the network of other signifiers that constitute knowledge
- (3) \$ – the divided subject, the subject that can never experience fulfilled desire
- (4) *a* – the lost object that is the object of the subject’s desire and lies beyond the signifier

THE DISCOURSE OF THE MASTER

The first discourse that is relevant to university teaching, and the one that sets up a movement to other discourses, is the discourse of the master. This discourse represents, for Lacan, the foundation of the Symbolic Order and is a discourse that exists prior to the launching of the discourse of the university, which is a step backward from the discourse of the master.

The agent who initiates the quest for knowledge in this discourse is the master signifier, what Lacan refers to as S1. Here, the desire of the master is to engage in an elaborate pretend game that he is one and undivided. Yet this desire of the master to be one and undivided soon encounters a problem, because, as we know from Hegel’s master-slave parable, the master realizes that he needs the slave in order to enact, in real time and space, his quest for mastery. The slave in the discourse of the master is knowledge, what Lacan refers to as S2, so that, in formal terms, S1 must try to link up with S2.



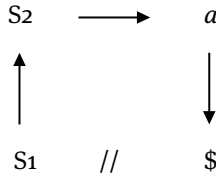
Lacan tells us that “the slave’s own field is knowledge, S2.” The slave is “the one who is the support of knowledge . . . because he is the one who has the know-how” (2007, 21). And the design of the discourse of the master is all about finding how it is possible for knowledge, the slave’s knowledge, to become the master’s knowledge.

What the relationship between the master signifier and knowledge produces is a division between S1 and S2. Yet because there will always be a division between the quest for the master to be one and undivided and knowledge as an answer to that desire, what is produced by the discourse of the master is the lost object, what Lacan calls the object *a*. The object of knowledge that might produce oneness and undividedness is impossible because the very craving of the master is insatiable and can never be fulfilled. As Paul Verhaeghe explains, “The result of his impossible craving to be one and undivided through signifiers is a mere paradox: it ends in the ever-increasing production of object *a*, the lost object” (1995, 9).

The conclusion that the master draws from this is that he needs another strategy in order to fulfill his desire for mastery, and here he turns to the university.

THE DISCOURSE OF THE UNIVERSITY

Lacan believes that there is a very distinctive discourse that rules the contemporary university. As I mentioned already, for Lacan, the discourse of the university represents a regression of the discourse of the master and, as we shall see later, is the inverse of the discourse of the hysteric.



In the discourse of the university, knowledge, the signifying chain, or S_2 , is put in the place of the agent and is thus the driving force of the whole process. If knowledge is the agent, the other that knowledge reaches out to is the lost object, object a , the object that knowledge would just love to get hold of and understand completely. Yet, as was the case with the discourse of the master, the relationship between knowledge and the lost object is an impossible one. The object a has its basis in what Lacan refers to as the Real, a realm that is beyond signification. Thus, the signifying chain of knowledge can never reach the object in the Real.

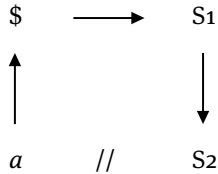
The really interesting thing about the discourse of the university is that the relationship between S_1 , the master signifier, and S_2 , knowledge, consists of, according to Lacan, “wishing that an absolute sense corresponds to language.” There is only one signifier that can answer to this wish, and “it is the I . . . the I insofar as it is transcendental, but, equally, insofar as it is illusory. This is the ultimate root operation . . . an elaboration that the university discourse guarantees for itself” (2007, 62). Thus, in the discourse of the university, it is the transcendental I that occupies the position of truth.

For Lacan, the agent of knowledge, or S_2 , is extremely powerful because it has usurped the role the master had before. For Lacan, knowledge now occupies the dominant place in the form of an order, a command, or commandment. As he says, we now have in the discourse of the university a “pure knowledge of the master, ruled by his command” (104).

THE DISCOURSE OF THE HYSTERIC

The discourse of the university is a regressive move in relation to the discourse of the master. However, there is a way to move forward from the discourse of the master and that is by turning to the discourse of the

hysteric. And so I would like to propose, in a fairly provocative way, that the university move away from the regressive position of the command of knowledge and hystericize itself. This is a necessary move, and it is a move that leads us forward on the path to a truly critical form of analysis. The first thing that needs to happen for us in the university to hystericize our discourse is to put the divided subject, or what Lacan gives by the notation \$, in the position of agent.



The discourse of the hysteric puts the impossibility of desire right at the beginning, in the position originally held by the master. In other words, the moment that we, as teachers and students in the university, begin to speak and write, we are divided between and among signifiers. The result is an always already unstable identity that persists and a desire that insists, a desire that can never be satisfied. Now desire, experienced as impossible and as a primary loss, turns into a demand that is directed to the other. The divided subject turns to the master, or S_1 , to get an answer. The question the hysteric puts to the master is: “Who am I? What is my desire?”

The master is the one who is supposed to know and to give the hysteric an answer. That is why S_2 , namely, knowledge, is the product here. The answer that the master gives, however, is not, in the last instance, all that significant, because the true answer lies in the object a , the ever-lost object, and this answer cannot be expressed in words. What is ultimately revealed in the discourse of the hysteric—and this is such a useful lesson—is the impossibility of the signifying chain expressing any final truth, thus bringing about the failure of the master and marking what Lacan refers to as his symbolic castration.

The most important aspect of the discourse of the hysteric with respect to knowledge and knowing, and what differentiates it from the classic discourse of the university, is “the detour, the zigzag lines” (33). Lacan tells

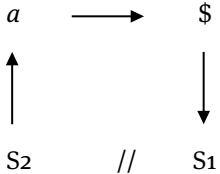
us that “what hysterics ultimately want to know is that language runs off the rails.” Thus, what lies at the core of analysis, in its hystericized form, is that it turns the professor or the student “into this subject who is asked to produce signifiers” (34)—signifiers that take detours, that go on zigzag lines, that go off the rails.

For Lacan, then, the solution to the failure of the master to answer the question of knowledge is simply to produce even more signifiers that fly off in every direction. However, the problem that the discourse of the hysteric presents to us is that it does not focus its attention on the lost object itself. For the hysteric, it is all about producing more signifiers in a frenetic and rhizomatic way, and the pathway to the Real and the lost object are lost sight of. That is why we need to move to the discourse of the analyst.

THE DISCOURSE OF THE ANALYST

The important move we need to consider in rethinking our understanding of the university has to do with the priority we need to give to the lost object, object *a*, as the agent behind the quest for knowledge and truth.

Lacan tells us that it is “the analyst who is the master . . . in the form of object *a*” (35). The analyst’s position is that of object *a* “insofar as this object *a* designates precisely what presents itself as the most opaque in the effects of discourse” (42). We need “to represent, in some way, the discourse’s reject-producing effect” (44). What I am proposing, then, is that if we as university teachers are to turn ourselves into analysts, in the Lacanian sense, we would do well to take the position of object *a*.



As lost object, as representative of all that is opaque and rejected, we as university teachers oblige our students to take their own divided being

into account. The relationship of lost object as agent to the other is thus one in which the student as other becomes self-conscious of his or her own dividedness, his or her own position as $\$$. This relationship between agent and other, between teacher and student, is, of course, an impossible one, and therefore, in a very important sense, it is impossible to be a teacher.

Now the interesting thing about the discourse of the analyst is that the product of the interchange between teacher as lost object and student as divided subject is the master signifier, S_1 . It may seem strange to say this, but, from a Lacanian viewpoint, the teacher-student relationship always yields, in the student, one master signifier, one S_1 . However, in Lacan's understanding, this master signifier is "radical" in the sense that it brings into self-consciousness the fact that each one of us will need to choose our own distinctive master signifier. We will return to this insight later when we get to Lacan's concept of the *sinthome*.

One of the most remarkable things is the place that knowledge, or S_2 , has in the discourse of the analyst. What does it mean to place knowledge in the position of truth? We should note that this conception of knowledge differs radically from the way that the classic discourse of the university understands things. Lacan puts it like this: "How can we know without knowing?" (36).

This knowing without knowing can be characterized as an "enigma," an enigma that can only be "a half-said" (36). In Lacan's view, when we as university teachers offer an interpretation in a class, it needs to be presented as an enigma. In other words, for Lacan, "the only way in which to evoke the truth is by indicating that it is only accessible through a half-saying (*mi-dire*), that it cannot be said completely for the reason that beyond this half there is nothing to say" (37). The question we would do well to ask ourselves as university teachers is the following: What would it be like for us to only speak enigmatically and through half-sayings?

It is true that, in Lacanian terms, the university teacher needs to have his knowledge function in terms of truth. However, the truth arrives only when it "flies off" or when it "drops." For Lacan, the truth "has scarcely crossed our field before it has already departed on the other side." It is structured by a "*not-without*." Lacan tells us that "we are not without a

relationship to truth.” Our truth “seems to be foreign to us . . . we are *not without it*” (55).

THE MASTER SIGNIFIER AND ENJOYMENT

From the position of the hysteric and the analyst, I want now to focus our attention specifically on the role of the master signifier in university teaching. The first thing to tackle, especially with respect to Lacan’s thinking in Seminar XVII, is the association between the master signifier and the father. If we are going to work with the master signifier in university teaching, such that the master signifier circulates in a productive way, how do we deal with the strong traditional association between the master signifier and the father?

Once we move to the discourse of the hysteric, which, as we have seen, is an important move for us to make as university teachers, we begin to appreciate the symbolic role that the father plays. This may surprise some, but according to Lacan, the father is primarily a deficient agent in the eyes of the hysteric. In trying to understand this, reference to the Oedipus complex is of some use, as long as we move from myth to structure and from story to symbolic function. This means that, although we originally start with a story or narrative in which figures such as father, mother, and child play out a drama, we need to move from that to structure and then on to something else yet again. To put this in a teaching context, although there is much traditional language that sees the university teacher as a father who fosters a strong identification from the student as child, our understanding changes somewhat when we move the analysis to structure and symbolic function.

Lacan’s early theory, which already took things beyond Freud, maintains that the father intervenes not in relation to the child but to the mother. Yet this early theory is still a patriarchal interpretation, in which the father takes the role of a kind of saviour who must free the child from the mother and her threatening desire.

Lacan’s position on the father undergoes a significant transformation in Seminar XVII, and this has centrally to do with how he reworks his understanding of enjoyment, or *jouissance*. According to Paul Verhaeghe,

in Seminar XVII we have the following formulation: “We are the way we (don’t) enjoy” (2006, 37). So, here, in talking about the father, we have finally come back to the issue of enjoyment.

Lacan believes that if we were to experience nothing but enjoyment, we could not exist as a subject. Our existence as subject requires that we take a divided stance toward enjoyment. Enjoyment poses a threat to life itself in that the path that leads to enjoyment is also the path that leads to death. There is thus a need for a kind of brake on enjoyment that exists prior to the onset of subjective identity. This brake has traditionally and conventionally produced a gendered distribution of roles, where the woman-mother acquires the part of enjoyment and the man-father acquires the part of the brake and its subsequent function of prohibition.

For Lacan, enjoyment comes directly from the Real. However, enjoyment cannot be experienced directly but can only be experienced through what he refers to as inscriptive repetitions. The signifier that inscribes enjoyment comes from the Other, and this produces textual marks that subsequently become the object of enjoyment. To put it slightly differently, the subject receives his or her enjoyment in the form of textual marks that need to be interpreted.

The inscriptive repetitions are an attempt both to attain enjoyment and not to attain enjoyment. In this context, the signifier is both the means for arriving at enjoyment and the cause of its loss. This divided stance toward enjoyment, which seeks to slow down the road to death, is displaced onto the Other. It is thus the Other who carries enjoyment within “her,” and it is on “her” that any prohibition of enjoyment is placed.

Lacan thinks of this as a “cunning” transition, which replaces the impossibility of enjoyment with the prohibition on enjoyment. In this sense, Freud’s Oedipus complex is none other than a mechanism whereby impossibility is replaced by prohibition. The cunning transition involves taking an original impossibility of enjoyment that is located at the level of the Real and displacing it onto the Other. The paths to enjoyment are available to the subject as long as he or she renounces the enjoyment that is associated with the Other. There is a social complicity in this, according to Lacan, and this is because in our society we have traditionally associated the Other with the mother and the woman, and thus she becomes the

site of the prohibitions that allow the subject to avoid the overwhelming experience of enjoyment.

Lacan argues that men and woman are placed in certain positions because of the impossibility of enjoyment. Thus, Lacan takes Freud's father and gives the figure a structural interpretation, with a very important change. Instead of Freud's castrating primal father, Lacan presents us with the castrated father, one who must pass on this castration to the next generation. Yet this castrated father is not biologically based but functions instead as an operator in the form of S_1 , the master signifier.

This passing on of castration or lack takes place initially through a primary identification with the master signifier. The movement from S_1 to S_2 , from master signifier to knowledge, however, brings about a division in the subject, which Lacan calls castration but which fundamentally refers to the impossibility of enjoyment. Thus, from the moment he enters the discourse of the master, the father, as structural operator, faces castration and impossibility.

What we need to do, then, is turn the father into an agent, where agent is understood, in Verhaeghe's words, as an "executive . . . paid to do a certain function" (2006, 44). The job that the executive is paid to do is pass on a lack, an impossibility. Symbolic castration is bound up with the introduction of the master signifier. The introduction of this signifier is the viable means for attaining enjoyment. But what is attained is what Lacan calls a surplus enjoyment that registers both the loss of enjoyment and its gain at another level.

Lacan adds something to this analysis that is very important and that moves his theory well beyond his earlier deliberations. He says that the master signifier can be any signifier whatsoever so long as it takes the position of S_1 , or the master. This means that it is not a question of the specific content of the signifier but rather of its function, which is to transform total enjoyment into surplus enjoyment.

We can think of ourselves as university teachers in this regard. Our goal in teaching would be to appeal to master signifiers that, with respect to knowledge, pass lack on. Or, to put it differently, our task is to pass on the impossibility of knowledge. And in the encounter with the master signifier, the student experiences enjoyment, or, more precisely, enjoyment transformed into surplus enjoyment.

Yet, in Lacan's view, there is still something unsatisfying about the experience of surplus enjoyment. By the end of his teaching, he argues that we need to take the analysis of the master signifier in relation to enjoyment yet one step further. In his *R.S.I.* (Real, Symbolic, Imaginary) seminar (Seminar XXII, 1974–75), Lacan proposes the idea of a specific master signifier for each subject. And this specific master signifier will now be understood through the notion of the symptom. Lacan suggests that we approach enjoyment through a self-fashioned symptom, what he calls a *sinthome*.

I believe this move to the *sinthome* changes the situation of university teaching somewhat because with it there is a more direct and central encounter with the Real. The classic symptom is a product of the Symbolic, but this symptom rests on top of an enjoyment based in the Real. What Lacan would seem to be proposing is that the university teacher encourage the student to re-create himself or herself by making a choice to identify with the kernel of his or her symptom, which is in the Real.

Now, according to Lacan, having symptoms is part and parcel of being human and is not something that we can or wish to cure through knowledge. Thus, there is no subject without a symptom. However, according to Verhaeghe and Frédéric Declercq, in his final conceptualization Lacan advocates a “purified symptom, that is, one that is stripped of its symbolic components—of what exists outside the unconscious structuration of language: object a or the drive in its pure form” (2002, 8).

Lacan refers to the Real part of the symptom as the “letter.” And he makes a contrast between the signifier in the Symbolic and the letter that comes from the Real. As Verhaeghe and Declercq explain, “The letter is the drive-related kernel of the signifier, the substance fixating the Real jouissance. The signifier, by contrast, is a letter that has acquired a linguistic value. In the case of the signifier, the Real of the drive is already absorbed in the Symbolic” (9). In the teaching situation, the decision that the student makes with respect to his or her knowledge is one that takes place in the tension between the signifier and the letter as components of the symptom. In essence, as university teachers we would encourage our students to find a way of working not only with the symbolic component of the signifier but also with the letter as the core drive-based kernel coming from the Real. This brings us back to the contrast between pleasure and

enjoyment that I mentioned at the outset of this essay and the issue of inscription and marking that we looked at in relation to the master signifier. When students “read” texts, their enjoyment (as an approximation to the Real), as opposed to their pleasure (as ego mastery), will come when they are able to orient themselves to the “letters” of the text.

This kind of reading would involve, for Lacan, an identification with the symptom. Identification with the symptom occurs when the student chooses to make active use of the letter in the text as the Real kernel of the signifier. This would bring about an important shift in the student’s relationship to enjoyment. The student would orient himself or herself to the enjoyment that more directly hits the Real. This is surely a more radical and perhaps unsettling move for students to take in their learning, more radical than the somewhat measured articulation of surplus enjoyment that I described earlier. And I have no illusions about the difficulty of the task, because it involves an increasingly individualized form of reading and interpretation on the part of the student that allows him or her to move beyond the Symbolic component of the text and arrive at a somewhat frightening yet exhilarating encounter with the letter as Real.

The *sinthome* represents a modification on the theory of surplus enjoyment and suggests another way we might use surplus enjoyment in teaching. For the emphasis is now even more radically on the students, in their quest for knowledge, for which they must carefully choose a master signifier that allows a more direct identification with the symptomatic core of their being. And from that point the student gains an enjoyment that is as close as possible to the Real of his or her desire to know and discover the truth.¹

NOTE

- 1 As a result of the sudden onset of his illness, Paul Nonnekes was unable to complete revisions to this paper. He had planned a concluding section on the interdisciplinary application in the classroom of his reflections on the Lacanian *sinthome*.—R.F.

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14

“One code to rule them all . . .”

SUZANNE DE CASTELL

*One code to rule them all,
One code to find them,
One code to bring them all,
And in convergence bind them.*

(with apologies to J.R.R. Tolkien)

This essay is about the *doing* of interdisciplinary work, and it simply offers some illustrations, some discussion, and a few implications drawn from one particular approach to the “doing” of that work. I have no doubts that the age of grand, all-encompassing theories is long over; however, what I will argue here, and this by no means original, is that the unprecedented possibilities for representing knowledge of any and all kinds by means of the “one [digital] code” afford us ways of *doing* interdisciplinary work that promise to bridge qualitative and quantitative methods, human and physical sciences, philosophy, art and mathematics, work and play, leisure and learning, and even, I sincerely believe, what we have come to understand as “body” and “mind.” I’ll end with some thoughts about reconceptualizing what we mean by evidence. A modest scope for a short essay, I realize.

Let me start, then, with a bit of computer game play, in this case drawn from one small game development project we completed for Toronto's Tafelmusik baroque orchestra, called "*Arundo donax: A Baroque Adventure*."¹ The question motivating this essay is, "How can we ever more fully engage with and make innovative and inventive uses of emerging digital systems, codes, and tools without relinquishing the deep and rich fields and forms of mastery thus far evolved from the cultural logics of print?" This question is, I think, to some extent illustrated in that project, which uses online flash-based computer games as a medium to connect young people with a set of traditions, knowledge, and experiences that are largely lost to all but a few of them in the present day. In preparing this work, we did of course do considerable research, listened to great lashings of baroque recordings, and also attended live performances by Tafelmusik, trying to find bridging points from which we could convey, in this digital game-based form, generative connections between what these skilled musicians understood, could do, valued, and wanted to share with a new, yet increasingly distant, generation of potential audience members, in a form of "serious play" (de Castell and Jenson 2003) that would be fun, irreverent, and yet also engaging and challenging for young players, building bridges between these two worlds that might encourage players to learn about baroque music and culture.

Beginning with the larger context, the main game screen, or game "shell," is a full-screen stylized map of Europe (see figure 14.1). On the map, narratively salient points of interest are clearly marked. At the player's first login, the point that marks London, England, is highlighted, and players can click there or on any other point on the map that is not grey (three mini-games are greyed out until the narrative is introduced by clicking on London). Once a player has clicked on London, the game begins, in the court of Queen Anne in the year 1704. Henry Purcell, the former composer for Queen Anne's court, is dead, and his two children, Frances and Edward Purcell, are summoned by the Queen. A brief, sparsely animated cut-scene introduces the narrative and gives players their quest—to play the mini-games, fill out the musical score on the map (representing their progress through the games), and find the elusive *Arundo donax* plant—no longer available now that England is at war with France—so that the English bassoon and oboe players will be able to make new reeds.

After the narrative has been introduced, players are invited to choose their “travelling costume” and are taken back to the map, from which they can navigate to other mini-games and content. The “incentive” for overall game play is to fill in the musical score, unlocking Tafelmusik tracks that can be downloaded and replayed.



Figure 14.1. The main game screen, <http://tafelmusik.org>

The first game I’ll draw on is a musical inscription game, and the second a baroque dancing game. (Incredibly enough, we envisage adolescents in schoolyards all over Canada fighting over who is the best baroque dancer. . . .) To be noticed in these examples are two things: first, how digital game-based work poses the challenges I emphasized of holding on to traditional knowledge even as we embrace new formations—whether cultural, disciplinary, or other—and second, how working on these games engages us as well in *interdisciplinary* theory formation, specifically, in this case, epistemic inquiries into media and learning and the question of how game-based technologies for learning and emergent digital epistemologies reform and re-forge relations between learning and play.

It is within this constellation of questions about media and knowledge that our team has been trying to develop what we call, following game designer Raph Koster's suggestion, a "ludic epistemology" (Koster 2006).

A THEORETICAL ASIDE

The term "ludic epistemology" references the need explicitly to remediate traditional linguistically mediated epistemologies. Its guiding questions are about what it means to encode knowledge in the form of a game and about coming to know as a process of playing. A theory of ludic epistemology is concerned with the distinctive demands of—and the particular constraints upon—knowledge representation in the development of computer-supported game-based learning environments. For people who work in education, as I do, its primary theoretical questions concern the re-mediation of educational knowledge and its representation.

Educational games, by comparison with popular entertainment-oriented games, have in the past tended to steer in directions away from play, pleasure, and genuine enjoyment toward curriculum-driven exercises that leave less, not more, room for playful engagement with ideas than traditional print-based educational media. In games of this order, "curriculum content" is largely derived, ironically enough, from the very same epistemic framework that ludic pedagogy seeks to supersede. The conception of "educational content," in educational games like this, derives from, depends upon, and develops text-based views of knowledge, teaching, and learning driven, understandably enough, by print literacy's particular regulations and constraints for knowledge representation. But this is far away indeed from the kinds of digital literacies that have propelled commercially successful video games. What does knowledge representation in general, and school knowledge in particular, look like, once it becomes digitally re-mediated, encoded in games and developed through play?

Issues of knowledge representation, although they have not (yet) received much attention, are central to an educational understanding and use of digital media in general, and digital games specifically.² The role and status of the "virtual" (de Castell and Jenson 2003, 9), the relative

weighting of “content/information” over “pedagogy” when education is delivered at a distance (Taylor 1996, 10), the novel intellectual affordances for teaching and learning that digital toolsets are making thinkable and doable (Murray 1998, 11)—each of these and more current trajectories of inquiry are helping us to understand the contours of a culturally and historically unprecedented space in which we are challenged to educate, not through coercion, stratification, and failure (Illich 1983, 12) but through volition, engagement, interest and mastery.

Any rule-bound, game-based environment requires, we argue, that knowledge be reconceived in a play-based digital form. Traditional demands for specified “learning outcomes” frustrate the efforts of educators who are increasingly being urged to look to computer games and play for pedagogical models and instructional tools, since digital games do not invite, and rarely tolerate, the kinds of extended, propositional, and analytical statements that text-based knowledge enables. Understanding more about how the constraints and affordances of digital games work against traditional, text-driven forms of knowledge representation, envisaging what they might work toward, and coming seriously to terms with a “ludic epistemology”—a theory of play-based learning and knowledge—is, we argue, fundamental for transforming and refining emerging conceptions and practices of education.

BACK TO THE GAME

The first two tasks that Frances and Edward Purcell must complete involve establishing their knowledge of the baroque orchestra (see figure 14.2). Next they must demonstrate their skill at writing baroque musical scores. The main objective of this three-level musical inscription mini-game is to introduce the sections of a baroque orchestra in an interactive way and to acquaint players with musical scores from this period. Inspired by the popularity of rhythm-based games, this mini-game is designed so that the player sees a moving horizontal timeline of an original baroque score, in which some notes have been made “active.” The player has to click each “active” note as it passes between two bar lines on the left side of the screen (see figure 14.3).

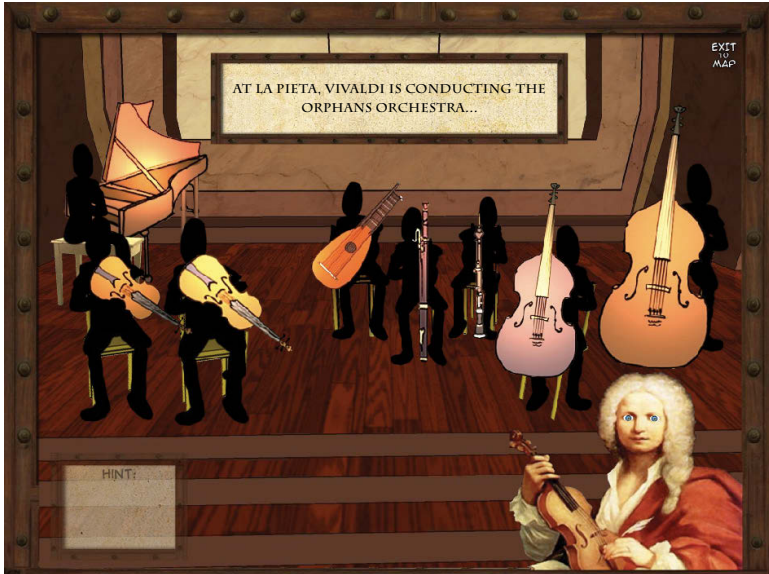


Figure 14.2. Vivaldi introduces the orchestra game

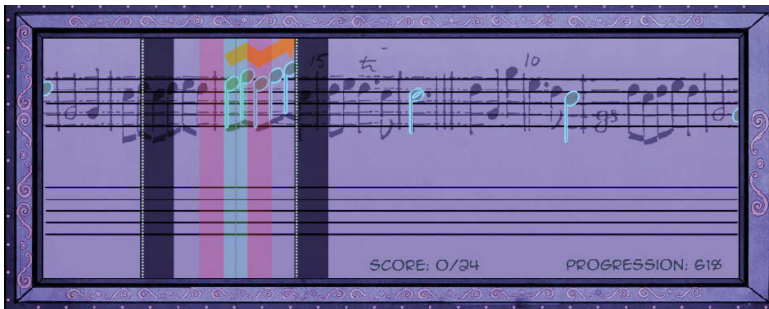


Figure 14.3. Level one of the musical inscription game

The primary concept and mechanics of this game share a lineage with several commercial titles, including *Guitar Hero* and *Rock Band*, two popular examples. Its “backstory” is an assignment to rewrite notes faded by the sunlight on Bach’s original score. Musically, it introduces structural elements of baroque orchestration in larger formations than the individual baroque instruments that we introduced in the immediately prior orchestra game. We wanted to help players both to hear and to carefully

attend to both the key “voices” in baroque orchestration, and, in particular, to notice the central role of the continuo part. Our goal was to have players both “hear” and then “see” these musical elements by, in effect, writing parts of the score and, using effective game forms (what Koster, in *A Theory of Fun for Game Design* [2004], terms “ludemes”), to engender something suggestive of the skilled “automaticity” that musicians must develop, albeit not, of course, of the same level or kind. Nevertheless, we think, the fact that there is a developmental, well-paced, challenging element of skill development in play here that is intimately related to and bound up with an authentic aspect of musical competence makes this game an effective illustration of bridging disciplinary educational work using digital technologies. So, in this game, players listen to and follow along with classical music excerpts, closely attending to a horizontally scrolling timeline featuring musical notes that they have to catch accurately with a keypress or with a movement of the mouse, in the case of connected “legato” passages.

THE GIGUE IS UP: A DIGITAL BAROQUE DANCE GAME

After completing the mini-games described above, players unlock the last challenge, which takes place in the Hall of Mirrors at Versailles—the court of Louis XIV, the “Sun King”. Here, the game’s narrative reaches its conclusion, as players must literally dance their way into the king’s favour so that he will grant them a supply of *Arundo donax* to bring back to England.

As with the orchestration and inscription mini-games described above, play mechanics are modelled after a popular “music game,” in this case, Dance Dance Revolution (DDR). As with DDR and its multiple PC- or web-based spinoffs (such as Stepmania and Flash Flash Revolution), arrow icons move vertically across the screen, and the player must press the corresponding arrow keys at the appropriate time. Unlike other web-based games emulating DDR, however, where the action plays out across backgrounds of abstract visuals, our game has characters actually dance around the screen in time with the music, so that players are actually “performing” a digitally mediated Baroque dance choreography. Arrow keys move the characters to the left, right, up or down, in a bending and rising

motion (in dance, the *plié* and *élevé*), while combinations of arrow keys and the W, A, S, and D keys will move the character in the indicated direction to execute either a *pas assemblé*, *pas coupé*, *demi-coupé*, or *pirouette*.

Button prompts are synchronized to the downbeats of the musical tracks, so that, as with real baroque dance, characters perform a step with every beat. We enact different difficulty levels through different types of dances, each with its accompanying audio track: the relatively slow Menuet for the first difficulty level, the more up-tempo Gigue for the second, and the fast-paced Bourrée for the last and most challenging level.

Well-timed keystrokes result in characters moving fluidly in place; the constraints of time and budget did not allow us to develop more “realistic” movement in 3D virtual space. “Misses”—pressing the wrong key, or mistiming a keystroke—cause the character to stumble, but in contrast with DDR (and music-based games generally), characters do not get booted off stage for missing too many steps (though a humorously stylized Louis IX grimaces at flaws and smiles approvingly at successful steps, with an “approval meter” to register his ongoing reactions), and players are evaluated on their cumulative performance after the dance is completed.

As with our other mini-games, this dancing game privileges a kind of play, which actually engages players in a form of baroque cultural expression, rather than with an exposition of historical facts about baroque dance. This is accomplished through the amplification of player input, which Poole (2000, 17), among others, describes as one of the central pleasures digital games afford. With minimal, but timely input, the player’s character executes complex and fluid movements imitative of the grace, decorum, and precision that were upheld as virtues of formal court dance (and dancers) of the time. Historical fidelity is achieved through representation and play: the stage is modelled after the Hall of Mirrors in Versailles, the characters’ motions around the floor invoke historically authentic baroque dance patterns, the audio tracks are representative of the kinds of dance music favoured by Louis XIV’s court, and the character animations themselves are modelled after videos of actual baroque dance enthusiasts performing particular dances and steps.

As with other parts of the game, there was significant negotiation during this game’s development between our design team and the content

experts we brought in as consultants. At issue was the level of technical sophistication and historical fidelity that ought to be included in a game meant to teach children the fundamentals of baroque dance. Should we be concerned, for instance, whether our game conveys the fact that musicians count the phrasing for a Menuet using two-bar mini-phrases with three beats in each bar, whereas dancers count in units of six? And how would such a concern—which is deeply important to those who perform and/or dance to baroque music—be represented in the game?

This small example illustrates the kinds of considerations we had to balance when designing a game that was ostensibly for children but was received and supervised by baroque music experts: two groups for whom what “counts” as useful or engaging knowledge may not always converge. There was also some concern around whether to allow players who had selected the girl character, Frances, to perform the dancing game in her “travelling” costume, which features pants, instead of the more historically accurate corset and broad dress motif of the other three costumes we designed for that character. Here, our ongoing concern with generating non-gender-normative character representations in educational games (discussed more fully in a separate account of the design for a health education game: see de Castell et. al., 2007) came into tension with a perceived need for historical fidelity: women wore dresses at court, and that’s that.

The last project I would like to draw on to illustrate “the scope of inter-disciplinarity” is quite different and not at all game-based—but, we hope, no less engaging.

MULTIMODAL ANALYSIS PROGRAM: “DIGITAL HERMENEUTICS” IN THEORY AND PRACTICE

Qualitative research based on audiovisual field recordings has traditionally been represented using a text-based notation system and reported through an argument-driven essayist text, a limited, reductive form of data representation and analysis. This concluding section describes a research tool we have developed that supports multimodally convergent annotations of complex interactions, generating “semiotic scores” to

draw attention to significant instances of gestural, verbal, and physical exchanges. This visual mapping of multimedia data supports an interpretative analysis based on shared, objective, publicly accessible digital artifacts: this enables a “digital hermeneutics” that begins to bridge qualitative and quantitative analysis.

In the literate past, knowledge was encoded in primarily textual form, and while this is certainly still the case, text is losing its privilege as the dominant medium of representation, communication, and expression. David Olson remarked some time ago on the ease with which we mistake linguistic fluency for cognitive competence, noting that “we often see as intellectual accomplishment what is in fact merely mastery of a particular form of language” (Olson 1994). The technological developments of the past two decades—during which time digital technologies have become increasingly ubiquitous, mundane, and intertwined with almost all aspects our daily lives—have brought about a fundamental epistemic shift, a transformation not only in our notions of what constitutes work, play, learning and sociality, and what separates these activities (if they remain separate at all: see de Castell and Jenson 2003), but also in our notions of what counts as knowledge.

This shift was not unanticipated: Marshall McLuhan, whose own work across media modelled a reflexive appreciation of and responsible engagement with theoretical studies of media forms and functions, helped to wake us up from what he described as “the habits of rigid perspective induced by three centuries of print hypnosis” (McLuhan 1955). Today’s diverse forms of mediation effect transformations of what knowledge is, what knowledge is of most worth, what constitute legitimate processes of coming to know, and who can legitimately assume the identity of knower (Lankshear and Knobel 2003). Once we discover the changes that can be made to knowledge, knowing, and knowers by the forms in which and the tools through which human understandings are mediated, we confront a new kind of imperative: that of “rhetorical responsibility,” that is to say, responsibility for the means we deploy to achieve our knowledge-building and knowledge-sharing purposes, as well as the validity claims we make for such knowledge.

THE MAP PROGRAM

The methodological affordances of digital audiovisual technologies support a retooling that draws qualitative research into closer alignment with the broader epistemic transformations brought about by the widespread integration of digital technologies into our everyday lives. In a world where print is only one of many modes through which meaning is produced, communicated, and shared, we are invited to rethink the notion that our means of mapping and understanding the social must “always be writing” and instead pursue research methods of inscribing, analyzing, and sharing ethnographic knowledge that are similarly multimodal. A software tool for the multimodal analysis and coding of verbal and non-verbal communications preserved in audiovisual data, MAP (Multimodal Analysis Program) enables users to mount and play a selected audiovisual clip presented above a series of channels, similar in look (and, by extension, in the way it is read) to a musical score. Each user-defined channel in the score represents a distinctive communicative mode and/or hypothesized source of significance in the clip: for example, one participant’s immobility, another participant’s laughter, episodes of group laughter, sudden or sustained instances of quiet, or shifting physical proximity between participants.

The beauty of this tool is in fact its meaninglessness, or, more precisely, its semantic arbitrariness: there is no content to this instrument. In itself, it is completely empty, evacuated of any significance, a set of functions, a bit like zeros and ones or, before that, the alphabet. That means that whatever meanings it can convey are entirely at the discretion of the user, and it also means that its ability to convey meanings is not limited. As users add events to each (differently coloured) channel each time that channel is activated, a semiotic score emerges that charts communicative actions across the various semiotic layers that users have identified as significant. Using MAP, researchers can annotate complex interactions among participants and draw attention to significant instances of gestural, verbal, and physical exchanges and to otherwise unobservable interrelations between and among them. Researchers using the MAP tool create “semiotic scores,” as shown in figure 14.4. This multimodal coding

of video data means researchers can attend not only to a range of communicative modes, but also to how these communicative modes are coordinated across a period of time. MAP also allows for, and indeed invites, multiple interpretations of the same interaction by differently positioned observers. In the clip illustrated in figure 14.4, for example, tracking attention based on gaze both “captures” and preserves an instance for more detailed scrutiny in greater multimodality than text can afford, which both exceeds the profound epistemic shifts enabled by the stability of print relative to the impermanence of embodied speech (Goody 1978) and suggests particular new hypotheses (in this case, we think, about gender and video game play).

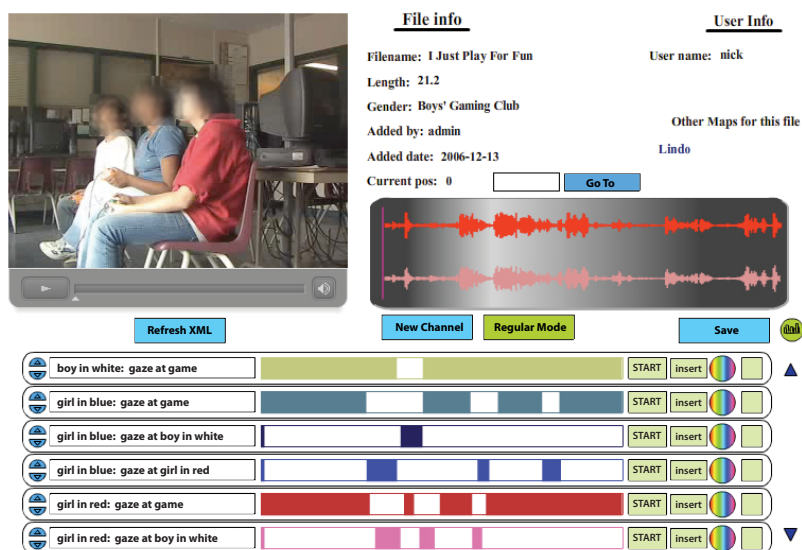


Figure 14.4. The current MAP interface

In making visible the ways we conceptually organize and make meaning of audiovisual data, MAP affords degrees and kinds of researcher reflexivity not readily available through primarily textual techniques of analyzing and reporting on ethnographic research. A means not only for coding an interaction but for representing the coder’s own process of attending to what she or he deems significant in that interaction, MAP allows researchers to work toward a critical understanding of not only

what but *how* they read and “code” meaning. The iterative and intensive process required to “map” an audiovisual clip, of identifying channels and then plotting instances across these channels, thus becomes a process of “mapping” not only ethnographic meaning but the meaning-making process itself in ways that enable researchers to “reflect on their own subjectivity” (Pink 2001, 10). Using MAP, our attention can be better paid to the possibility, central to the very idea of a humane social science, of systematic, relatively well-structured variations in the objective perspectives of differently located interpreters of a shared perceptual event. MAP thus provides an exceedingly useful tool for visualizing, sharing, and analyzing data that supports a profound and long-overdue reconception and representation of validity in ethnographic research.

MAP offers a robust, refined, and comprehensive tool not only for conducting but also for organizing and, crucially, *sharing and objectively comparing* multimodal analyses of audiovisual research—both between members of a particular research team and among researchers from different disciplines, projects, and institutions. Its efficacy as a tool for producing nuanced analyses of multimodal communications in educational settings has been illustrated in studies of computer game play and in informal learning environments (Taylor and de Castell 2005; Taylor 2007; de Castell et al. 2007).

EVIDENCE, VALIDITY, AND RHETORICAL RESPONSIBILITY: EXPANDING THE SCOPE OF INTERDISCIPLINARITY

Our main goals in developing MAP are, first, to enable us to generate nuanced and fine-grained analyses of audiovisually recorded micro-interactions, with the capacity to integrate textual as well as audiovisual data, *convergently*, in a way that makes evident, public, and calculable the functional relationship among multiple modes of expression. Digital technologies have provided us, for the first time in human history, with a master code, a code of all codes, capable of representing phenomena hitherto necessarily conceived as different in kind. This has meant that until now, researchers have invariably been unable to perceive the ways

in which and the extents to which multiple modes of communication and expression work together, co-constituting human communication and interaction in ways far more complex than our research tools have thus far allowed us to see. The second goal is to create a comprehensive online database where a global community of social scientists engaged in audiovisual research can store, organize, code, and share their MAP-based analyses. A third goal is to chip away at conceptions of validity that have not served humanities and social sciences well at all and that have systematically undermined our abilities to generate the kinds of relational analyses upon which human social scientific work depends. This benefit does not emerge *despite* the generation of competing accounts of phenomena but rather precisely *because* of that, in our ability to demonstrate patterns and regularities in the ways that identity, content, interests, and positionality shape and constrain perception and interpretation—and to show that this inter-rater *dis*-agreement does not make alternative interpretations any less objective or any less valid. Qualitative researchers have long needed a way to make both objective and, at the same time, relational the phenomena they examine. MAP allows us to do this. These goals, we argue, collectively bring about a technologically driven means of re-mediating conceptions, criteria, and practices of “evidence-based” research and of fostering a “rhetorical responsibility” among researchers interested and/or currently engaged in audiovisual social science research. It combines visual representation of multimodal data with well-structured, computer-supported researcher interaction and interpretation techniques to enable an integration of “situated” (and thus context-relative) human judgment with objective, quantifiable, and fully comparable accounts (“semiotic scores”) of publicly shareable data taking the form of audiovisual documentation of social-interactive events.

As a tool for charting and visually representing the coordination of *multiple* modes of communicative action across short periods of time—literally “mapping” audiovisually recorded micro-interactions—MAP requires its users to confront and work through their own meaning-making processes: to become accountable for what and how they see, and what sense they make, of the same piece of audiovisual data. With the MAP tool as a central component of a broader online infrastructure whereby researchers can store, organize, and code their own project’s audiovisual data, as well

as collaborate with other researchers across institutions and disciplines through sharing their analyses of and insights into audiovisual research, MAP creates grounds for a profound reconstruction of our conceptions of evidence and associated practices of “inter-rater reliability,” informing our conceptions and practices of how “evidence-based research” is re-mediated by new and emerging digital tools. Reflexively, moreover, MAP is a tool for informing and advancing rhetorical responsibility, not only on the part of researchers toward their data but across and within communities of practitioners.

In developing what we are calling a new *digital hermeneutics*, researchers using MAP can readily access and compare diverse interpretations of data, bringing qualitative research into closer alignment with the broader epistemic transformations that digital technologies have ubiquitously wrought in our lives, and recognize that both research and its objects are, necessarily, multimodal.

To the extent that it cultivates rhetorical responsibility on behalf of its users to their research data and also, potentially, to a global audience of fellow practitioners, MAP can become a means of working toward what Donna Haraway some time ago called “accountable positioning” (Haraway 1988): a mode of scientific exploration in which the researcher confronts and makes public her own meaning-making processes, rather than assuming the “view of everything, from nowhere” that, Haraway says, has to its detriment characterized Western science for centuries.

By enacting these epistemological and ethical considerations around the “doing” of interdisciplinary work, then, our aims are not simply to integrate new media into conventional approaches to knowledge building but to actually *challenge* our commonly received notions of what counts as “knowledge,” “facts,” and “evidence” as more and more social practices at work, home, play, and school become mediated by technologies that fundamentally displace the monological authority of text, through privileging different and multiple modes of communication. And these examples demonstrate, we hope, something of “the scope of interdisciplinarity.”

NOTES

- 1 For an index of the Tafelmusik games, see <http://contagion.edu.yorku.ca/Tafelmusik/games/>. The research team contributing to this work consists of Jennifer Jenson, at York University, and PhD students Nick Taylor (at York) and Milena Droumeva, Lorna Boschman, and Nis Bojin (at Simon Fraser University). All of our work, including the present paper, is collaborative. We are deeply indebted to the Tafelmusik Baroque Orchestra and Choir (www.tafelmusik.org) both for the opportunity to take on this wonderful project with them and for their patience, their support, and all the many kinds of tremendous assistance—and education—they gave us in the course of the project.
- 2 Games theorist Espen Aarseth (2003) has argued persuasively that, in a pervasively remediated digital culture, the term “digital” no longer designates anything distinctive, so “digital games” is really now just a very imprecise use of language to designate “computer-supported games and play.”

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Decolonizing Teaching and Learning
Through Embodied Learning
Toward an Integrated Approach

ROXANA NG

THE ARGUMENT FOR AN EMBODIED PEDAGOGY

This essay is, first and foremost, about teaching and learning. It is a critique of current modes of teaching that do not treat the learner as an embodied subject and an exploration of a more holistic pedagogical endeavour that explicitly acknowledges the interconnectedness of mind, body, emotion, and spirit in the construction and pursuit of knowledge. To explore this interconnection, I argue, we need to disturb the existing boundaries of educational discourse and turn to and incorporate other epistemological and philosophical traditions. But the present essay also forms part of a volume on interdisciplinary studies. Thus, in beginning, I pose the questions: What are the boundaries of interdisciplinary studies, and can an integrative approach to pedagogy be considered

interdisciplinary? I invite the reader to keep these questions in mind, and I will return to them in closing.

As I have argued elsewhere (e.g., Ng 1998, 2005), contemporary Western liberal and critical education is built on a profound division: the privileging of the mind-intellect over the body-spirit.¹ By and large, educators, including critical educators, have focused their educational efforts on developing students' intellect and capacity for critical reasoning. The body is relevant only as a vessel that houses the brain, which is regarded as the organ responsible for the mind/intellect. Although there have been attempts to rescue the body and restore its agency, both in social theory (e.g., Shilling 1993; Turner 1991) and in cultural theory (e.g., McLaren 1995), most of the writings focus on how the body is represented and instrumentalized in postmodernity (what I call the outside-in approach). This attempt to incorporate the body into social and cultural theories, however, does not include the spirit, which is relegated to the domain of religion. The spirit "belongs" to theology and religious studies, not to other disciplines; this indicates the depth to which our thinking is circumscribed by existing disciplinary boundaries. Much of critical teaching is implicated in the mind-intellect versus body-spirit divide.

When I talk about the spirit, which I call the body-spirit, I do not mean "spiritual" in the common, Western, religious sense. I use this hyphenated term to indicate that we cannot talk about body, mind, and spirit (which includes our emotion and psyche) as if they were separate entities. I am aware that this topic has provided both Western and Eastern philosophical traditions with a long history of intellectual and theoretical debates too complicated to discuss here. In contrast to the other contributions in this volume, I am invoking an understanding, based in Chinese medical theory, that treats the mind, spirit or soul, and body as completely interrelated. Thus, nothing can happen in one sphere without having an effect on the others. I came to the realization of this inextricable connectedness during my doctoral study. The pains, discomfort, and other persistent, though not serious, ailments I experienced during this intense period of intellectual concentration not only reminded me of the body's inevitable presence in our every endeavour; it also awakened me to the fact that if we ignore its presence, there can be consequences. However, it wasn't until I began teaching that a

drastic shift in my consciousness occurred, informed by my experience as a minority in the professoriate. This, in turn, led to my subsequent journey toward discovering and incorporating the connection between body, mind, and spirit in my teaching and praxis.

It is not easy to be a minority, a woman, and an immigrant living in a society that upholds white male supremacy. As a nation colonized by Europeans, notably the English and the French, we live with the legacy of colonialism in Canada, which began with the subordination of Aboriginal peoples. This subordination is extended to other groups that are seen to be different—physically, linguistically, culturally, ideologically—and hence inferior. As we move up in the power hierarchy, this inferiorization of the “other” becomes much more entrenched and difficult to disrupt. As part of the institutional structure created historically to preserve the privilege of certain classes of men, the academy is no exception to the entrenchment of white male privilege, values, and knowledge based on men’s experience of the world. The fact that women and racial minorities have made inroads into this bastion of patriarchal power does not mean that they are now fully accepted within the academy. Indeed, there is a burgeoning literature that exposes the barriers that minorities encounter in the university, be they teachers or students, *both* because their presence challenges the once homogeneous makeup of the university *and* because they challenge the process of knowledge production based on white, male assumptions (e.g., de Castell and Bryson 1997; Roman and Eyre 1997).

The exercise and maintenance of power takes multiple and complicated forms. Elsewhere (Ng 1993, 1995), I have identified three major power axes in the university: that between the classroom and the larger academic institution; that between the teacher and the students; and that among the students. Thus, although a faculty member has formal authority as a representative of the university, this authority can be challenged by students in the classroom. For example, a minority woman faculty member may be challenged more often than her (white) male colleagues simply because she is relatively powerless in the larger society. Faculty members whose teaching does not conform to the expected conventions in terms of content and style are likewise apt to be challenged more often. Sexism, racism, a sense of class privilege, and other such biased attitudes are operative in interactions among students as well.

What is important to point out is that relationships of power are never enacted *merely* in the form of intellectual encounters. Most intellectual encounters entail a confrontation of bodies, which are differently inscribed. Power plays are both enacted and absorbed by people physically, as they assert or challenge authority, and the marks of such confrontations are stored in the body. Each time I stand in front of a classroom I embody the historical sexualization and racialization of an Asian female, who is thought to be docile, subservient, and sexually compliant, even as my class privilege, formal authority, and academic qualifications ameliorate some of the effects of this stereotype. My presence is a moment in the crystallization of the historical and contemporary contestation of ideas and practices that are constantly changing. That is, my physical presence in the academy, in turn, challenges the sexist and racist construction of the archetype of an Asian female.³ It is indeed the encounter of bodies, not only of intellect, that gives dynamism to the process of teaching and learning. As we engage in critical teaching and bring our activism to the university and to our classrooms, this dynamism is what excites us, at the same time that going against the grain can make us physically ill (Ng 1998).

Yet despite feminist scholarship's insistence that "the personal is political," we have no language to speak of how we embody our political and intellectual struggles. We wage these struggles in our professional and public lives, but when we get sick, we see and treat our illness as a personal and private problem that is not to be openly discussed. This bifurcation points to how fundamentally we have been influenced by Cartesian thinking, which posits a separation between the body and the mind (Bordo 1987, especially chap. 5), and by the privileging of mental over manual labour (Marx and Engels 1970). It goes beyond compartmentalizing our lives into two spheres, the public/professional and the private/personal; it also extends beyond a simple theory-practice split and the contradiction between what we think and how we act. It has to do with the more fundamental way in which ruling ideas have become taken-for-granted practices, and it affects how we are—our *being*—in the world. These practices are *embodied*; they have become habitual ways in which we conduct our business and, more importantly, *ourselves*.

The opportunity for me to integrate my personal explorations of health and illness and my teaching, and thereby develop a mode of teaching that

honours both the mind and body-spirit, came in 1991. I took over a colleague's course, "Health, Illness, and Knowledge of the Body: Education and Self-learning Processes," when he moved into another field of study. (My experience developing this course was documented in Ng 2000.) Since that time, I have experimented with different ways of (a) insisting that embodiment be an essential part of my classroom encounters with students, and (b) remaining truthful to the traditions of critical education central to my training and writing. The method of teaching, which I will describe later, has gone through numerous iterations and name changes, from "Health and Illness" to "Integrative Approach to Equity." The present iteration is reflected in the title of this essay—an integrative critical embodied pedagogy, or embodied learning (EL), for short. I incorporate EL into most of my teaching at a graduate program of education, with different degrees of success and popularity. Notably, starting in 2001 I developed a course called "Embodied Learning and Qi Gong" that places EL front and centre. Central to EL are two interconnected elements: I insist that physical *and* contemplative activities are part not only of the course content but also of the students' everyday life. Qi Gong, a meditative and breathing practice that originated in ancient China as early as five thousand years ago, is the primary tool I use to promote the interconnection of the body, mind, and spirit.

DISRUPTING THE BODY-MIND BINARY THROUGH QI GONG

Simply translated, Qi Gong is a generic term for any exercises that involve the breath—the art of cultivating *qi*, *qi* in this context referring to the breath. It is one of the healing and martial arts. According to scholars of Qi Gong, this form of exercise was developed by people of an agrarian society who watched and mimicked the movements of animals in relation to cycles of planting and harvesting, life, and death. It was practised originally as a form of therapeutic dance to cure rheumatism and ward off other symptoms of excess Damp Evil in the flood-prone Yellow River basin (Reid 1994, chap. 13). It has been known by many different names throughout Chinese history. In fact, the term Qi Gong is fairly recent. According to Ken Cohen, a scholar and practitioner of Qi Gong, while

the term was first mentioned in Taoist (or Daoist)³ texts during the Ming Dynasty (1368–1644), it was not used in its present specialized sense until the twentieth century (Cohen 1997, chap. 2). While there are many forms of Qi Gong, developed and guarded by families who practised Chinese healing arts, most are based on Taoist principles and theory similar to those of Chinese medicine.

Chinese medical theory, or TCM (Traditional Chinese Medicine), is based on the central Taoist principle of the unity of opposites—yin and yang. According to Chinese creation myths, the universe was an undifferentiated whole in the beginning. Out of this emerged yin-yang: the world in its infinite forms. In both Taoism and TCM, yin-yang is a symbolic representation of universal process (including health, in the case of TCM) that portrays a changing rather than a static process (Kaptchuk 2000, chap. 1). The important thing to understand is that the two opposite states are not mutually exclusive or independent of each other. They are mutually dependent, and they change into each other. Therefore extreme yang becomes yin, and vice versa. The theory of yin and yang has been mistakenly represented in the West as a dualist philosophy. Chinese medical scholars such as Kaptchuk, however, argue that it is a form of dialectic that is both similar to and different from Hegelian dialectics (see Kaptchuk 2000, 174–76).

Health is considered to be the balance of yin-yang aspects of the body, and disease is the imbalance between these aspects. This is a form of dialectical thinking radically different from the causal linear thinking and logic of allopathy and positivist science. The body in TCM is understood to be in a state of dynamic interaction of yin and yang; it is constantly changing and fluctuating. On the basis of this fundamental understanding of the nature of yin-yang and health as balance, TCM views illness not so much in terms of discrete diseases as in terms of disharmony. Thus, TCM outlines eight guiding principles for determining these patterns of disharmony. According to Beinfield and Korngold (1991), the eight principles are four sets of polar categories that distinguish between and interpret the data gathered by examination: yin-yang, cold-heat, deficiency-excess, and interior-exterior. Again, these are not mutually exclusive but can co-exist in a person.

A major difference between biomedicine and TCM theory is the way in which the body is conceptualized. The Chinese view of the body does not correspond to that of Western anatomy. For example, Chinese medical theory does not have the concept of a nervous system, yet it can treat neurological disorders. It does not speak of an endocrine system, yet it is capable of correcting what allopathy calls endocrine disorders. Although language makes reference to what the West recognizes as organs such as lungs, liver, stomach, and so on, these are not conceptualized as discrete physical structures and entities located in specific areas within the body. Rather, the term “organ” is used to identify specific *functions*. Furthermore, TCM does not make a distinction between physical functions and the emotional and spiritual dimensions governed by the “organ” in question. It describes an organ not only in terms of its physiological processes and functions but also in terms of its orb—its sphere of influence (Kaptchuk 2000; Beinfield and Korngold 1991).

For example, in TCM the Spleen is the primary organ of digestion.⁴ It extracts the nutrients from food digested by the stomach and transforms them into what will become “Qi” and “Blood.” The Spleen is thus responsible for making Blood, whereas the Liver is responsible for storing and spreading Blood. As such, the Spleen is responsible for transformation, transmutation, and transportation, and these functions apply to physical as well as mental and emotional processes. At the somatic level, “weakness” in the Spleen means that food cannot be transformed properly into nutrients that nourish the body. At the emotional and psycho-spiritual level, a weak Spleen diminishes our awareness of possibilities and our ability to transform possibilities into appropriate courses of action, which leads to worry and confusion. Ultimately, it affects our trustworthiness and dependability (Kaptchuk 2000, 59–66).

The body, then, is conceptualized not so much in terms of distinct parts and components as in terms of energy flow (*qi*). Qi, a fundamental concept in TCM and Chinese thinking, is frequently translated as “energy” or “vital energy” but in fact has no precise conceptual correspondence in the West. Qi is what animates life. Thus, while there is Qi, there is life; when there is no Qi, life ceases. It is both material and immaterial. Qi is present in the universe in the air we breathe and in the breaths we take. It is the quality we share with all things, thus connecting the macrocosm

with the microcosm. Qi circulates in the body along lines of energy flow called meridians or organ networks. Another way of conceptualizing disease is to say that it arises when Qi is not flowing smoothly. This leads to blockage and stagnation, which, if persistent, will lead to disease (that is, pathological changes in the body). Thus, an important part of the healing process is to unblock and facilitate the free flow of Qi. Different therapies (massage, acupuncture, and herbology) are aimed at promoting the smooth flow of Qi and rebalancing disharmony.

Together with these notions of health and the body, the Chinese have developed exercise forms called Qi Gong aimed at optimizing health and balance. These are exercises or movements aimed at regulating the breath, the mind, and the body simultaneously. Daniel Reid identifies four basic applications of Qi Gong: health, longevity, martial power, and spiritual enlightenment (Reid 1994, 175). There are literally thousands of forms of Qi Gong, from sitting postures similar to what the West recognizes as postures conducive to meditation to Tai Ji Juan, which at its most advanced is a form of martial art aimed at honing the body, mind, and spirit to respond to external attack without the use of force. Practitioners of Qi Gong believe that by disciplining, activating, and regulating the normally automatic, involuntary way of breathing, they are able to regulate and alter other functions of the body such as heartbeat, blood flow, and other physical and emotional functions. Thus, Qi Gong is not *simply* a physical exercise. Nancy Zi, a professional vocalist who studies Qi Gong to enhance her operatic singing, puts it concisely, “The practice of *chi kung* . . . encompasses the ancient Chinese understanding of disciplined breathing as a means of acquiring total control over body and mind. It gives us physiological and psychological balance and the balance of *yin* and *yang*” (Zi 1986, 3). Qi Gong is thus based on the same principles as TCM; they are complementary. It is a recommended exercise form in TCM and is taught widely as a healing art in China.

It is precisely the way TCM and Qi Gong conceptualize the interconnectedness of body, mind, and spirit that I found useful in my attempt to restore the centrality of the body in teaching and learning. Since 1991, I have been experimenting with using Qi Gong as a tool for cultivating critical inquiry that is at once embodied and reflexive—a mode of inquiry that is contemplative and dialogic and that acknowledges the equal

participation of body, mind, emotion, and spirit in scholarly pursuit and in knowledge construction. This understanding underpins embodied learning (EL).

THEORIZING AND PRACTISING EMBODIED LEARNING

In addition to Qi Gong theory and practice, I draw on Frantz Fanon's (1963, 1967) analysis of the psychology of the colonized and on Antonio Gramsci's (1971) notions of hegemony and common sense. Fanon's work is groundbreaking because he was one of the first social scientists to attempt to understand colonization as more than just a direct oppressive force. More profoundly, it is an attitude internalized by the colonized, so that she adopts the ideas and behaviour of the colonizer and acts, or regulates herself, according to the norms of colonial society. Similarly, Gramsci uses the term *hegemony* to explain how ruling ideas are shared by the dominant and working classes. He asserts that once a ruling idea becomes hegemonic, it becomes common sense. Commonsense thinking is uncritical, episodic, and disjointed, but it is also powerful because it is taken for granted (Gramsci 1971, 321–43). Applying Gramsci's historical discussion to racism in contemporary British society, Stuart Hall notes:

[Ideologies] work most effectively when we are not aware that how we formulate and construct a statement about the world is underpinned by ideological premises; when our formulations seem to be simply descriptive statements about how things are (i.e., must be), or of what we can “take-for-granted.” (Hall, quoted in Lawrence 1982, 46)

Colin Leys suggests that when an ideology becomes completely normalized, it is embedded in language.⁵ But ideology is not merely a set of ideas; it is a practice in that it shapes how we act, as well as how we think. I would extend Leys's observation to argue that once hegemonic ideas become common sense, they are *condensed* in our emotional and physical beings—in how we relate to women and minority groups, for example, and in how we see and relate to ourselves.⁶ In short, they become patterns of behaviour.

Elsewhere (Ng 2004), I have used my babysitter's attitude toward eating as an example to illustrate this force of habit. The example is worth repeating because it is clear and non-threatening; its power as a message lies in its simplicity. My "babysitter," who looks after my animals when I am away, was eighty-two, going on eighty-three, when I first wrote about her. She doesn't cook, so I cook for her. She gulps down her food as soon as I put it in front of her, frequently finishing a whole dinner before I have a chance to sit down. When I asked her to eat more slowly, she would say: "I always had to eat fast when I worked at the hospital. We were only given half an hour for lunch." When I remind her that she has been retired since she was sixty-five, her rebuttal is inevitably: "I can't help it." It is the belief that "I can't help it" that locks people into fixed patterns of behaviour. So it is that my babysitter has developed a "habit" of eating quickly because of years of working in a place where she had to hurry or else her pay would be docked or she would be reprimanded. Gulping down her dinner is "natural" for her, taken for granted, not to be questioned. Thus, change is only possible if we can develop the capacity to examine our patterns of behaviour objectively, without attachment, in order to determine whether and how to change. This requires that we be reflexively critical, that we be open to examining the integrity of our being without guilt and judgment.

Using insights from Fanon, Gramsci, and Foucault, we can see how dominant and subordinate power relations are played out interactionally in "normal" and "natural" ways. Feminists have drawn attention to how patriarchy works in practice: men are listened to when they speak; women and minorities are not heard. My notion of EL, which I am calling an "integrative embodied critical pedagogy" here, seeks to help us develop the capacity not only to reason critically but to see dispassionately and to alter actions that contribute to the reproduction of dominant-subordinate relations. It is an attempt to close the gap between progressive theory and practice. To illustrate, I will describe briefly what I do in "Embodied Learning and Qi Gong." This course consists of three basic components.

First, in addition to introducing students to TCM and Qi Gong, I assign readings on different ways in which the body is conceptualized in different disciplines such as sociology, anthropology, and psychotherapy. The goal here is to expose students to the centrality of the body in academic and other writings—including what some sociologists have identified as

the absent body in social theory (Shilling 1993; Turner 1991)—and to drastically different ways of constructing the body. Thus, they come to see that the boundaries of the body are by no means fixed; they are malleable. Understanding the diverse ways of perceiving and describing bodily experience raises questions about knowledge and power: about who has the power to define what constitutes illness, for example.

Second, at least one hour of this four-hour-per-week course is devoted to the practice of Qi Gong as a form of mindfulness exercise. There are at least two objectives for this component of the course. Insisting that exercises be part of the curriculum reinforces the fact that we are embodied learners, that learning does not only involve the mind. It draws our attention to how the body, emotion, and spirit are involved in the learning process: what we embrace and resist, and why. Moreover, in many Eastern traditions, meditation is used as a discipline that focuses the mind, enhancing our capacity to reflect on our thoughts and actions without judging them—what Buddhism refers to as non-attachment, as opposed to detachment. An attitude of detachment is characterized by the absence of emotion when we are presented or confronted with something. In contrast, non-attachment consists in refraining from passing judgment on something in the first instance. It is a state of dispassionate observation, one that enables us to consider, objectively, how to interpret or act on something and to do so with understanding and compassion. The following journal description, written by one of my students, serves as an illustration:

I felt my feet rooted to the floor. I sensed the movement of my limbs located in relation to the space I occupied. I sensed the tension and relaxation of my muscles as a physical experience of my tissues. I felt the flow of breath that was at one moment a part of me, inside my lungs, and at the next moment, a part of the air that surrounded me. I experienced these things with my body, that physical part of my self.

There were times when I was so involved in the physicality of the experience that my surroundings faded from my vision. I was aware of the professor's verbal instructions and my efforts to translate those instructions into coordinated physical movement. I was aware of concentrating on the cycle of my breathing. I knew these and other

things from the cognitive part of my being. At times it was as if I were an outside observer watching the experience of my body. My mind, my body, and my breath were connected yet separate entities engaged in qi gong. It was like a revelation that day I was able to articulate a sense of body—my body from those oppositional and interdependent positions. Through repetition of body movement which replicates the cycles of breath I was echoing the rhythms of life and nature. . . . Qi-gong training was embodied exploration of the invisible process of constructing knowledge of the body. (Gustafson 1998, 53)

While initially I took up Qi Gong practice as a way of reducing stress and promoting health, with time and practice I came to understand and appreciate how it is that Qi Gong and other forms of meditation are spiritual, as distinguished from merely religious, practices. These practices enable one to develop the capacity to be *mindful* of one's thought and action, so that one does not go about one's daily business thoughtlessly and automatically as a matter of habit. They enable one to see how one's actions affect others, and whether and how one should change. They therefore give us the means, albeit not the only ones, to interrogate how our consciousness is developed and changed. The assumption here is that consciousness has both a mind-intellect and a body-spirit dimension. It is tangible because it is embodied. Understanding and analyzing the development of consciousness thus necessitates an interrogation of our being as sensuous living individuals, of the material conditions that enable and limit our bodily existence, and hence of knowledge construction itself (which is accomplished by embodied subjects). Much like the call for starting with people's lived experience proposed by critical and feminist pedagogy, it is a mode of learning that grounds the knower in time and space and provides an anchor enabling us to see that thought processes are inevitably historically and spatially specific. This in turn allows us to see that indeed consciousness can be changed, as we confront it and understand how it comes about.

The third component is journalling, which is included as part of the course requirement and as an accompaniment to the mindfulness exercises. Journalling has three purposes. First, as with many courses that require students to keep a reading journal, I ask students to summarize

the major argument(s) of an assigned piece of reading to develop their comprehension and summary skills. Reviewing this part of the journal gives me a sense of whether students understand the materials and, if not, what remedial action I and they should take. Second, journaling is another tool that enables students to reflect on their reactions (feelings and emotions) to the course materials. I ask students to record and analyze their reactions, to trace how these feelings are triggered by what they've read, thus enabling them to use reactions as a starting point for reflection and analysis. Finally, students are required to keep a Qi Gong journal, preferably on a daily basis, that describes their practice of and reaction to the practice of Qi Gong.⁷ The purpose here is to treat the body as a site for knowledge construction.

RISKS AND POSSIBILITIES OF EMBODIED LEARNING

Practising EL by incorporating Qi Gong in the university curriculum presents an invaluable and promising opportunity for me to interrogate Western knowledge construction with like-minded, or at least curious, students. Not only have I learned tremendously from teaching EL, but I have also changed my own praxis over time, to the point where I am now convinced that integrating body, mind, and spirit is not only disruptive to established educational conventions in North America but is a method of decolonizing—undoing—ways in which we have come to be in the world. Similarly, Deborah Orr has theorized and advocated for the use of mindfulness as part of anti-oppressive pedagogy in higher education. She claims that mindfulness practice is “a proven technique to address the non-cognitive forms of attachment to ideation that may remain in force despite the most thorough-going intellectual change” (2002, 477). In working with Aboriginal women who have experienced tremendous abuse and violence, Alannah Young and Denise Nadeau argue strenuously for a multi-dimensional approach that uses songs, meditation, ceremonies, and other forms of embodied spiritual practice. In their view, “the transformation of the impacts of sexual, racial and colonial violence requires unlearning ways of thinking and being that have been etched onto the body” (2005, 13), and thus one must decolonize the body in order to heal.

But what about the students? What do they get out of EL in the classroom? Here, I want to report on three students' written reflections on EL. These women took courses with me during different periods in my own development of EL. Although my overall approach has remained fairly constant over the years, my own thinking, and the course title, contents, and format have undergone many modifications. However, what can be gleaned from their writing is how they take up the notion of embodiment creatively in their own lives, thereby demonstrating the risks and possibilities of EL. Their experience and work will be described in chronological order below. As much as possible, I will quote from their own writing, in order to let them speak.⁸ But even with that, I vastly simplify the depth and poignancy of their analyses and narratives.

Si Tranken was a student when I first offered the course titled "Health, Illness and Knowledge of the Body." I was both excited and apprehensive about introducing unconventional, specifically physical, movements in a graduate class. In retrospect, I had vastly underestimated the power of engaging the body explicitly in intellectual pursuit and what this might open up. Thus, Si's paper, titled "Reclaiming Body Territory" (not to mention the journal I required her to keep), took me completely by surprise. In it, she detailed, for the first time, her experience of being sexually and physically abused for over a decade by her father and his friends, and her subsequent healing journey. The work she did in the course was part of this healing process, which involved a tremendous amount of emotional pain and physical discomfort. In the paper, she disclosed that she could not do the movement exercises because her method of survival throughout the abuse was to detach from her body, but she also wrote succinctly and movingly about how she reclaimed her body during the course, which culminated in the writing of her final term paper. Below are excerpts from the conclusion of her paper, which was published in the Canadian Research Institute for the Advancement of Women's Feminist Perspectives series:

I spent the first half of my life barely existing in my body. I have spent an equal number of years reclaiming my body. The remaining years of life I have available to me will, hopefully, be spent experiencing joy and peace in my body. I am attempting to be an active and vocal reclamer

and maintainer of my territory. One of the horrors of incest is the isolation and sense of aloneness in the world that the victim experiences.

I am trying to reclaim all of my stolen self/body. While daring and reclaiming, I am also bearing witness and offering my testimony as a political act as well as a therapeutic act.

The writing and the sharing of this story has been both excruciating and delightful and it has been an important part of that process of reclaiming. (Transken 1995, 28–29)

I remember clearly one of the questions posed by students in that course: “Are experiences always stored in the body?” My answer was, “I think so.” Since that time, I have learned a lot about embodiment and EL. Now my answer would be, “Absolutely,” even when we have no active memory of the experience or event. In offering courses of this nature, I now warn participants about the risks of engaging the body in the learning process and provide resources for counselling and other help should painful memories arise for which they need support. If participants persist and work through their discomfort, the rewards can be satisfying, as Si Transken and Carrie Butcher discovered.

Carrie came into our program as a part-time mature student who had been active in the anti-racism movement. She described herself as a “45 year old woman of Hakka Chinese, African and Scottish descent” who “was born in the former British colony of Trinidad” (Butcher 2009, 2). While she originally returned to school to improve her professional knowledge and skills in organizational change and anti-racism efforts, she found herself drawn to courses that focused around health, wellness, and creativity, including the “Embodied Learning and Qi Gong” course. After taking that course, she went on to enrol in my doctoral-level special topics course “Applications of Embodied Learning.” In the beginning, her academic goal was to explore issues of resilience and decolonization of her body. Soon after the course began, her focus became much more practical and immediate: after doctors discovered fast-growing fibroids, she had to decide whether to have a complete hysterectomy. Her class presentation and her journal, which she continued to keep during her fairly

lengthy hospitalization, documented her struggle with the decision. Her term paper (submitted two terms later because she did undergo surgery) was an examination of how she applied embodied learning processes to prepare for the surgery and to aid in her recovery. In it, she reviewed various TCM, biomedical, and women-centred perspectives on uterine fibroids based on medical and popular writings and touchingly and candidly explored the connection between resistance, traumas, and illness, and healing. She began the paper with her resistance to writing for an academic grade:

Reviewing my journal entry helped me to acknowledge and accept my resistance to writing about my surgery. . . . I came to see that my resistance to writing was a visceral message that it was time to care for myself before seeking to care for the world (through working with racialized communities). (Butcher 2009, 5)

She quoted from her journal to indicate how she worked through her resistance with the tools she learned from the class:

Looking within—by this I mean bringing my attention, my consciousness, to my bodily feelings—I became aware of a feeling of resistance to writing followed by judgment of myself for not being able to write, and then a sense of panic. I gently brought my awareness to this energetic pattern of resistance, judgment and panic that had emerged within me. Employing the mindfulness practice of unattached observation, I was able to stand back in my observer self, and simply look at this energetic pattern. In so doing I was able to reframe my embodied inquiry. I reframed the judgemental question “why can’t I just write?” to a more compassionate and simply curious question. It became “what is this resistance about?” This was an important shift, and one which finally allowed me to look at my resistance to writing. (7; emphasis in the original).

Through journalling and drawing, she transformed fear and resistance into yielding and acceptance, thereby laying the foundation for her process of healing:

In the two days before my surgery I reflected on the transformational possibilities that severing ties with my fibroids and losing my uterus might hold. The image that follows is of a sketch from my new journal, created as I lay in my hospital bed about two days before my surgery. The sketch . . . [developed] into an abstract flower, to my surprise . . . [with] three distinct parts—root system, stalk and petals. (16)

These parts signified different things to Carrie: the root system represented stuck creativity, which was informed by some of the feminist spiritual writing on fibroids (see Northrup 1994) and by her African heritage, among other things. The “vine-like” stalk symbolized letting go, transformation, and “the body saying no to unhealthy patterns,” in addition to ten other attributes (Butcher 2009, 18). At the centre of the petals is the word “possibility.” For Carrie, they represent a number of “possibilities offered by the image of the flower head, located at the culmination of a period of illness” (19).

In her integrative paper for “Embodied Learning and Qi Gong,” Carly Stasko recounted her resistance to the dominant definition and treatment of cancer and described how she applied the insights gained in the course to her work as a media literacy educator. Several years before she enrolled in the MA program in Holistic Education and took my course, Carly was diagnosed with Hodgkin’s lymphoma, a form of cancer that affects young people. She wrote about how she survived the diagnosis and treatment process:

I began to resist what I saw as oppressive in the language and metaphors of cancer and reclaimed a place of authority for my own embodied wisdom. . . . I did not want to energetically claim the cancer. I saw it instead as a blockage that needed to transform and pass through me. . . . I saw healing in a way that more closely resembled the understandings of Traditional Chinese Medicine, TCM—such that energy flowed through my body in various patterns and that all “things are imbued with interactive qualities and dynamics in their relationships to the things around them” (Kaptchuk and Croucher 1986, p. 17). Through a form of daily mindfulness mediation I was able to . . . “develop an awareness of the corporeal and emotional responses that accompany

ideas, opening up the possibility to more completely address their effects” in my life (Orr 2002, p. 492).⁹ (Stasko 2009, unpagued).

The course and the work she did for it enabled her to name her experience of recovery and healing, and reinvigorated her already creative work in media literacy.

Through my own process of embodied learning I’ve had to tune into my inner felt sense of power, energy and wellness, to have the courage to subvert a dominant narrative, and the creativity to generate a new narrative in which I had voice and could feel engaged in a meaningful and empowered way. This experience has reinvigorated my passion for embodied media literacy education because it showed me that processes learned in one context could be applied in unanticipated future ways. . . .

By integrating embodied ways of knowing into media literacy pedagogy new ways of relating to learning and understanding can be established such that wisdom becomes rooted in the *felt sense of the body* so as to *ground a critical awareness* of the concepts that shape our ways of knowing. In this way the two forms of wisdom can become integrated through *engaged and embodied action* in the world. (Emphasis in the original)

While not all of these authors use the term “decolonization” explicitly, I argue that their analysis and narration of their experience are concrete examples of decolonization that involves at least four elements: resistance, questioning, reclamation, and transformation (from negative to positive and from margin to centre). This progression in turn engages two critical acts: deep reflection and some form of embodied mindfulness practice that (re)integrates body, mind, and spirit.

Increasingly, therefore, I see EL as a form of decolonizing pedagogy (see also Tejada, Espinosa, and Gutierrez 2003). This contrasts with the commonsense use of the concept of “decolonization” to refer to a political and intellectual project having to do with the reclamation and reformulation of nationhood (see, for example, Duara 2004). For me, the notion of decolonization dissolves the boundaries between self and collectivity,

between the individual and the system. It interrogates how we, as individuals living within and being part of collectivities, reproduce and sustain systems of oppression—the questions addressed by Fanon and Gramsci. Understanding the dissonance between body, mind, and spirit leads me to see that, regardless of whether we are the oppressor or the oppressed, the perpetrator or victim, we reproduce oppression through normalized patterns of behaviour that have developed over time and have become “natural,” automatic, and unconscious actions and *ways of being* in the world. Thus, I use the notion of decolonization to indicate the practices in which we can engage to free us from ideas and ideology, on the one hand, and action and behavior, on the other, that serve as sources of separation. A mindful and reflexive practice such as the incorporation of Qi Gong into the classroom not only has the potential to extend the boundaries of Western knowledge construction but also helps us develop the capacity to transform our own bifurcated and compartmentalized way of being. It therefore holds the promise of facilitating personal as well as social transformation.

FINAL QUESTION: IS EL INTERDISCIPLINARY?

As commonly used, the term “interdisciplinary” refers to studies between or among disciplines as they emerged historically in the academy in Western societies. Strictly speaking, then, because TCM and Qi Gong fall outside the disciplinary boundaries of the Euro-American construction of knowledge, my work on EL is not interdisciplinary. However, if one adopts an expanded notion of interdisciplinarity as a crossing of boundaries (e.g., Klein in this volume), then one can say that my notion of an embodied critical pedagogy that combines Eastern mindfulness methods and Western critical analysis falls within the domain of interdisciplinary studies.¹⁰ However, we are still left with the issue of how to distinguish between interdisciplinary, multidisciplinary, and integrated studies (see, for example, Angus, Briton, Graff, Kisner, Klein, and Szostak, in this volume). The boundaries of interdisciplinary studies are still indeterminate and contested, and it is finally up to the reader to decide how she or he wishes to take up the ideas shared here.

NOTES

- 1 By critical education I mean critical pedagogy, feminist pedagogy, and anti-racist education, in Canada, and critical, emancipatory, or revolutionary multicultural education, in the United States (see McCarthy 1995). Although the two have different roots and traditions, they do share a common goal: to expose existing inequalities and instill critical consciousness in students.
- 2 I am using the term “archetype” here simply to refer to the fact that it is out of an archetype that stereotypes are developed. It is not to be confused with the way in which the term is used in Jungian psychoanalysis, where it refers to primordial, inherited, innate, and a priori modes of perception (Hyde and McGuinness 1992).
- 3 Daoism, or Taoism, is one of the oldest and most prominent Chinese philosophies. The way in which the term is spelled depends on the system of romanization. The older spelling, “Taoism,” is still widely in use, although the pinyin spelling, Daoism, is the one preferred by the People’s Republic of China. Similarly, “Chi Kung” and “Qi Gong” refer to the same form of exercise, with the latter spelling (the pinyin) now becoming the more prevalent.
- 4 Following the convention of scholars of Chinese medicine, I am capitalizing terms such as “Spleen” and “Blood” when they are used in the Chinese way, to distinguish them from Western usages.
- 5 Leys made this observation in a seminar at OISE on 21 March 1993. The seminar, which Leys led, was organized by Tuula Lindholm on behalf of a Gramsci study group. I thank Tuula for inviting me to the seminar.
- 6 My characterization here resonates with Foucault’s understanding of how the panopticon leads to self-regulation on the part of prisoners (Foucault 1977).
- 7 Indeed, students have to practise Qi Gong and meditation for at least five minutes each day as part of the course requirement. The rationale is to make EL part of their everyday lives so that mindfulness becomes a habit. From students’ discussions, I have discovered that this is one of the most difficult aspects of the curriculum.
- 8 As we will see, the final term paper of one of these students, Si Transken, was subsequently published, and I am able to quote from that. I have the permission of the two students to use their names and to quote from their work.
- 9 The references are to Ted Kaptchuk and Michael Croucher, *The Healing Arts: A Journal Through the Faces of Medicine* (London: British Broadcasting Corporation, 1986) and to Deborah Orr’s “The Use of Mindfulness in Anti-oppressive Pedagogies” (Orr 2000).
- 10 All the same, during the symposium at which this essay was first presented, Julie Klein commented that EL is a form of integrative study, rather than interdisciplinary study.

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From Integrated to Interstitial Studies

DEREK BRITON

To do something interdisciplinary it's not enough to choose a subject (a theme) and gather round it two or three sciences. Interdisciplinarity consists in creating a new object that belongs to no one.

Roland Barthes, *The Rustle of Language* (1986, 26)

INTERDISCIPLINARITY AS INTEGRATED STUDIES

When academic scholarship extends beyond the parameters of a single discipline, it tends to follow one of four trajectories: (i) multidisciplinary—drawing upon a range of disciplines to apply them individually; (ii) interdisciplinarity—engaging the disciplines in collaborative forms of inquiry; (iii) crossdisciplinarity—employing the disciplines to illuminate aspects of one another; or (iv) transdisciplinarity—transgressing and undermining disciplinary boundaries (Pollock 2004).¹ This essay introduces a fifth term and proposes a sixth. The fifth term, “integrated studies,” emerged with the establishment of Athabasca University (AU)’s first master of arts degree in 2001: the MA–Integrated Studies. By avoiding all reference to previous variants of disciplinarity (multi-, inter-, cross-,

trans-), the integrated studies approach seeks to bring various avenues of inquiry together in such a way that they constitute new interpretive frameworks and new objects of knowledge. In this respect, the integrated model aspires to Barthes's propagative vision of interdisciplinarity. It has certainly proven a popular mode of inquiry with students, facilitating the production of numerous student projects, but it has failed to generate a truly original object of knowledge, even from among the ranks of the most inspired and capable students. In this respect, the integrated studies model, even though it has moved many students closer to Barthes's vision, has inspired none to realize it. Although innovative and inspiring in its own right, the integrated studies approach is simply unsuited to producing "a new object that belongs to no one." The remainder of this essay is devoted to explaining why, exactly, this is the case and how this impasse can be remedied.

THE GENESIS OF THE MA-INTEGRATED STUDIES

Since its inception in 1970, AU's mandate has been to remove the barriers that limit educational opportunities. To this end, a policy of open access is employed to minimize academic barriers, and provision at-a-distance is used to reduce geographic and economic barriers. Academic excellence is prized, but AU's unique student demographic (74 percent of AU graduates are the first in their family to earn a degree), requires that equal emphasis be placed upon academic success. Open access, provision at-a-distance, and dedication to facilitating student success have come to define AU, and the very same principles informed the launch of its first and later graduate offerings. In 1994, an executive masters in business education (MBA) and a masters in distance education (MDE) paved the way for other graduate programs, including a master's degree in the arts, humanities, and social sciences. (For the vast majority of AU students, their degree is terminal, so programming leans toward the pragmatic rather than preparation for advanced studies, and this has undoubtedly contributed to the success of AU's undergraduate and graduate programs. That said, the graduate programming is flexible enough that it can be made sufficiently challenging to support students who wish

to pursue advanced degrees, evidenced by the fact that a number are now pursuing PhDs at some of Canada's premier universities.) Following two years of discussion and debate, the decision was made to launch a masters in integrated studies (MA-IS), for logistical as well as curricular reasons: AU graduate programs exist on a cost recovery basis, so a potential for growth over time was essential, and since other universities were closing single-discipline master's programs owing to shrinking enrolments, a degree that integrated the disciplines rather than placed them in competition made greater sense; furthermore, an integration of scholarly domains solved the problem of how AU, a small institution with insufficient faculty to support MAS in every discipline (fewer than 140 full-time faculty at the time), could provide students with an opportunity to pursue an MA in the liberal arts and social sciences. To ensure a range of curricular choices, only nine of the degree's thirty-three credits are mandatory: two core courses (one theory-based, one method-based) and a final capstone project. Program development was organic, allowing faculty with a desire to teach at the graduate level to propose courses, within some curricular constraints (courses had to involve more than one disciplinary approach and had to promote a critically reflective attitude in students).² As the complement of courses grew, affinities became apparent and several arenas of inquiry emerged: adult education, community studies, cultural studies, educational studies, equity studies, global change, historical studies, information studies, and work, organization, and leadership. The program opened in 2001, and students were required to declare at least one of these arenas of inquiry—initially designated specializations—as a focus area. More recently, a specialization in literary studies was added. Students are required to complete at least four courses in their designated focus area. A further, less structured focus area, Independent Track, is available to students with sufficient prior preparation, allowing them to create their own arena of inquiry, in consultation with and under the guidance of a faculty supervisor. The model proved both programmatically and economically viable, and extremely popular with students—so much so that enrolments mushroomed from 27 in 2001 to over 1200 in 2008.

Somewhat ironically, the MA–Integrated Studies proved a victim of its own success. Rapid growth and high enrolments placed increasing stress on its organic model of development and integrative notion of interdisciplinarity, compromising its sustainability: pastoral and academic counselling, teaching, and supervising large numbers of students meant faculty had little time to reflect on how well the program was meeting its prescribed goals. In 2007, faced with an impending external review, it was time for a thorough reassessment of the program’s premises, processes, and purpose: hence the hosting of the 2008 symposium that served as the basis for this collection of essays on interdisciplinarity. The goal was to widen the scope of the program’s reassessment process to include the larger, international debate on the nature and practice of interdisciplinary studies, allowing the program’s “integrated” model of inquiry to be situated in relation to new and emergent models of interdisciplinarity, affording an opportunity for the program not only to benefit from but also to contribute to the international dialogue on the theory and practice of interdisciplinarity. The symposium had three central aims: (i) to consolidate reflection upon and reassessment of the integrated studies approach to interdisciplinary teaching and research; (ii) to initiate a substantive dialogue among AU faculty and members of the national/international interdisciplinary community; and (iii) to make a contribution to the national/international debate on the theory and practice of interdisciplinarity in the form of a volume of essays that captured the debate’s current state, identified future trajectories, and served as a resource for practitioners, researchers, and students of interdisciplinarity. To that end, the symposium brought together leading interdisciplinary researchers and practitioners to debate the nature and scope of interdisciplinary studies in the twenty-first century, providing participants and observers an opportunity to explore and debate a range of topics of central importance to the practice of interdisciplinary teaching and research. This essay outlines one of the contributions to that debate: a call for a new model of interdisciplinary inquiry that expands the parameters of disciplinary thinking but retains its promise and purpose to further the pursuit of knowledge and distinguish opinion from truth. In this respect, interstitial studies, or at

least the model proposed herein, differs markedly from postmodern and post-structuralist “solutions” that throw the proverbial baby, the scientific world view,³ out with the bathwater, “scientism.”⁴

FROM INTEGRATED TO INTERSTITIAL STUDIES

During the planning stages of AU’s MA–Integrated Studies, the descriptors multi-, inter-, cross-, and transdisciplinary were explicitly rejected, in an effort to avoid the simple adoption of another set of predetermined practices, the “discipline” of multidisciplinary or transdisciplinarity, for instance. In choosing the term “integrated,” AU sought to acknowledge the interrelated complexities of the given, of an increasingly globalized world of interacting, evolving, and proliferating phenomena. Recognizing the given, as such, requires study not only through single-, multi-, inter-, cross-, and transdisciplinary lenses, but also with a view to its functionality as a field of activity/experience. The integrated studies model was intended to facilitate this end, and it clearly enjoyed successes in this area,⁵ but the greater challenge lies in how to build upon and further those successes. Reflection suggests that the task of constituting new modes of inquiry and new objects of knowledge demands that the given’s complexities be not only acknowledged but also radically reassessed. Heinz Insu Fenkl, former director of SUNY New Paltz’s Interstitial Studies Institute, takes the first steps toward such a reassessment in his essay “Towards a Theory of the Interstitial” (2003).

It was the publication of Fenkl’s first book, *Memories of My Ghost Brother*, that first alerted him to the ubiquitous presence of scientism, to “the power of binary oppositions in the world of publishing.” Fenkl, an author and associate professor of English and Asian studies, recounts the either/or logic that resulted in his book, which straddled the genres of “memoir” and “novel,” being assigned to the latter category. The publisher’s reasoning was unequivocal: the empirical evidence indicated that “memoirs by people who were not already famous did not sell well,” and since the book “had to be one thing or another . . . they made it a novel.” Fenkl later realized his publisher’s deference to scientism was “a general reflection of the way people think in western cultures” and that

such thinking holds sway far beyond the confines of the publishing industry, extending even into the realm of literary theory, even though it “is inadequate for dealing with an entire class of works” (Fenkl 2003).⁶ Fenkl labels this class of works “the Interstitial,” and sets out to reveal how these objects emerge into and recede from the reader’s consciousness, transforming the reader in the process. Fenkl realizes his insights into interstitial literary works have broader application, but their truly radical potential seems to escape him, and by choosing to limit the evidence he musters in support of his observations to anecdotes drawn from the realm of writing, he further reduces their critical impact. The implications of the interstitial, in fact, extend far beyond the realm of writing and, if generalized and fully substantiated, provide the basis for a revolutionary mode of scholarly inquiry—interstitial studies.

THE (UN)NATURAL ORDER

Fenkl (2003) begins his reflections on the interstitial by recounting how “the word ‘interstice’ comes from the Latin roots *inter* (between) and *sistere* (to stand). Literally, it means to ‘stand between’ or ‘stand in the middle.’” The interstitial, Fenkl notes, differs from other states of betweenness such as “liminality” and “hybridity” because the “inter” of the liminal and hybrid refers to a *transitory* state, whereas that of the interstitial signifies a *prevailing* state. The distinction is important, especially if Fenkl’s findings are to be extrapolated, because while liminality and hybridity argue for an alternative perspective on the existing world view (interpretive framework), the interstitial presses for its complete reconceptualization: “An interstitial work does not require reintegration—it *already has its own being in a willfully transgressive or noncategorical way*” (emphasis added). Interstitial objects, by refusing *either* to be one thing *or* another,⁷ alert us to the fact that we are inescapably implicated in our choice of world view, and that world views are ineluctably value-based as opposed to fact-based, something Jorge Luis Borges demonstrates with alacrity in his brief essay, “The Analytical Language of John Wilkins” (1942).⁸

Borges reveals that, in an attempt to construct a universal language along the lines first envisaged by René Descartes, John Wilkins (1614–1672),

founder of the Royal Society and Bishop of Chester, first divided the universe into forty categories, subdivided those categories based on differences, and then further subdivided them into species, assigning “to each class a monosyllable of two letters; to each difference, a consonant; to each species, a vowel.” What Wilkins overlooks, however, is “a problem that is impossible or at least difficult to postpone: the *value* of the forty genera which are the basis of the language” (emphasis added). Why, for example, does Wilkins choose such categories as “stones,” “metals,” and “viviparous oblong fish”? To demonstrate Wilkins’s implication in his choice of categories and subdivisions, Borges contrasts the bishop’s schema with that of a mythical Chinese encyclopaedia:

These ambiguities, redundancies and deficiencies remind us of those which doctor Franz Kuhn attributes to a certain Chinese encyclopaedia entitled “Celestial Empire of Benevolent Knowledge.” In its remote pages it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) Tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.⁹

That the realm of “animals” *could* be categorized in this manner rather than according to the Linnaean system (kingdom, phylum, class, order, family, genus, and species) draws our attention to the fact that taxonomies are a reflection of what the inquirer judges important, or values, as opposed to some invariable, natural order. For Borges, “it is clear that there is no classification of the Universe not being arbitrary and full of conjectures, and that the reason for this is very simple: we do not know what thing the universe is.” Of course, as Borges notes: “The impossibility of penetrating the divine pattern of the universe cannot stop us from planning human patterns, even though we are conscious they are not definitive.” Questions of conscious awareness aside, the scientific world view has proven of great value to natural scientists, but its application in politics, economics, and ethics limits and constrains inquiry in these domains to what science values: objectivity, measurability, and

predictability. The challenge, then, since we can never know “what thing the universe is” but are compelled to create “human patterns” in accord with our interests, formulations that structure and shape our perceptions of the universe, is to find an alternative scholarly mode of inquiry that furthers our understanding of the universe without denying our implication in our choice of world view, the subjective underpinnings of our formulations. This pursuit, to avoid the pitfall of scientism, must accommodate more than just the empirically and/or logically demonstrable, what we can know *directly*; it must also include what we can know only *indirectly*—the interstitial. More importantly, it is to acknowledge that the defining characteristic of whatever we know is necessarily unknown to us.

In a now (in)famous US Department of Defense news briefing, delivered 12 February 2002, Donald Rumsfeld, then Secretary of Defense, flirts with this relation between the known and unknown but fails to push it to its logical conclusion:

Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns—the ones we don't know we don't know. And if one looks throughout the history of our country and other free countries, it is the latter category that tend to be the difficult ones.¹⁰

What Rumsfeld leaves unsaid, but the interstitial makes clear, is that, in addition to being cognizant of (i) what we know (“known knowns”), (ii) what we don't know (“known unknowns”), and (iii) what we don't know we don't know (“unknown unknowns”), we can (*and must if we're to avoid the trap of scientism*) become cognizant of (iv) knowledge that is unknown to us (“unknown knowns”). This is imperative because the “unknown knowns” comprise our own implication in our formulations: “the disavowed beliefs, suppositions and obscene practices we pretend not to know about, even though they form the background of our public values” (Žižek 2004).¹¹ In other words, for what we know to be more than mere conjecture, we must remain ignorant of the lens (values/interests)

we use to bring determinacy to the indeterminate. This entails becoming (a) fully cognizant of, and (b) completely embracing the interstitial. Fenkl's observations of the interstitial move us closer to the first requirement but lack the evidentiary and persuasive force to bring about the latter. An account of the interstitial, to displace scientism, must be at least as compelling, explain scientism's failings, and offer a non-prescriptive path to the extension of knowledge and pursuit of truth. The demands and scope of this task are beyond Fenkl, as the inclusion of "toward" in the title of his essay suggests, but his observations do, indeed, provide the *mise en scène* for a solution.

THE INTERSTITIAL

What intrigues Fenkl about an interstitial mode of inquiry, and what should be of tantamount interest to educators, is its potential to *transform* the inquirer: "What the Interstitial does, actually, is transform the reader's consciousness. . . . In transforming the perceptions of the reader, interstitial works make the reader (or listener, or viewer) more perceptive and more attentive; in doing so, they make the reader's world larger, more interesting, more meaningful, and perhaps even more comprehensible" (Fenkl 2003). A desire to foster a transformation of this nature certainly inspired AU's choice of an integrated model of interdisciplinarity, but the results, although encouraging,¹² have proven limited, demonstrating the need for an interdisciplinary mode of inquiry with a greater transformative potential. Fenkl likens the transformational effect of the interstitial, a "phenomenon of illumination and (re)discovery," to "the moment of 'epiphany' in a story," when "the reader's consciousness of the story is transformed," and notes that "while all this happens in the reader's 'present,' the more important effect is that the reader's memory of the 'past' of the story is significantly altered." He compares this "epiphanic moment" to the sudden and gradual processes of enlightenment practised by the Rinzai and Sōtō schools of Zen, respectively. But this anecdotal account falls short of an explanation, much as his description of marginal works that evolve into full-fledged genres (William Gibson's *Neuromancer* and the genre of cyberpunk, for instance)¹³ falls short of explaining how

interstitial objects create “a retroactive historical trajectory” that erases them from consciousness. If we turn to the work of Jacques Lacan and his commentators, however, we find, grounded in an extensive conceptual framework, an explicit account of why an encounter with the interstitial transforms consciousness, and how its objects coalesce on the periphery of consciousness only to (re)posit their origin and return to its shadows. In this respect, Lacan’s work stands as an exemplar of an interstitial mode of inquiry.

LACAN’S THOUGHT

Lacan’s reconceptualization of the given is the antithesis of all previous systems of thought, and provides a compelling account of not only the existing world view (the formal/symbolic and effectual/cultured of scientism), but also of the interstitial (affectual/instinctual). Reformulated as the Symbolic, Imaginary, and Real, respectively, this ternary structure serves as the hub of Lacan’s thought. Concepts at the heart of scientism and the Western tradition (the subject, knowledge, consciousness, and truth) are retained but radically reconfigured in keeping with the intricately knotted topography of Symbolic, Imaginary, and Real. The effects are jarring, but only a rupture of this magnitude holds the promise of a break from scientism, as Audre Lorde astutely notes: “The master’s tools will never dismantle the master’s house. They may allow us temporarily to beat him at his own game, but they will never enable us to bring about genuine change” (1984, 112). Lacan, in fact, devoted his career to dismantling the master’s house, building upon the work of his intellectual progenitor, Sigmund Freud, and introducing changes, revisions, and modifications as his thinking progressed. He remained singular, however, in his insistence that his oeuvre not be distilled into a system that lends itself to mechanical and indiscriminate application:

If it is true that what I teach represents a body of thought, I will not leave behind me any of those handles, which will enable you to append a suffix in the form of an “-ism.” In other words, none of the terms that I have made use of here one after the other—none of which, I am glad

to see from your confusion, has yet managed to impress itself on you as the essential term, whether it be the symbolic, the signifier or desire—none of the terms will in the end enable any one of you to turn into an intellectual cricket on my account. ([1986] 1992, 251–52)

Far from unintentional, Lacan's enigmatic and oftentimes vexing style is, according to Richard Boothby, "calculated to frustrate facile understanding":

His aim in part is to replicate for his readers and listeners something of the essential opacity and disconnectedness of the analytic experience. Often what is required of the reader in the encounter with Lacan's dense and recalcitrant discourse, as with that of the discourse of the patient in analysis, is less an effort to clarify and systematize than a sort of unknowing mindfulness. We are called upon less to close over the gaps and discontinuities in the discourse than to remain attentive to its very lack of coherence, allowing its breaches and disalignments to become the jumping-off points for new movements of thought. (1991, 15–16)

LACAN'S RECONCEPTUALIZATIONS

Issues of composition notwithstanding, Lacan proposes a revolutionary conception of knowledge and learning: "Proceeding not through linear progression but through breakthroughs, leaps, discontinuities, regressions and deferred action, the analytic learning process puts in question the traditional pedagogical belief in intellectual perfectibility, the progressist view of learning as a simple one-way road from ignorance to knowledge" (Felman 1987, 76). Knowledge is desanctified and mobilized, as that which *cannot* be exchanged, transmitted, or "acquired (or possessed) once and for all: each case, each text, has its own specific, singular symbolic functioning and requires a different interpretation" (Felman 1987, 81). Truth, likewise, is preserved, but its meaning inverted from necessity to contingency, from certainty to misrecognition. The concept of "subject," too, is retained, but reconceptualized in keeping with

the ternary structure of Real, Symbolic, and Imaginary as the foundation of truth.

THE DECENTRED SUBJECT

Building upon Freud's discovery of the unconscious, Lacan rejects scientism's conception of the subject, its "fundamental master signifier—that of an 'I' that is identical to itself and transcendental" (Bracher 1988, 40)—and posits the subject as irredeemably decentred, declaring of his own subjectivity that "what is realized in my history is not the past definite of what was, since it is no more, or even the present perfect of what has been in what I am, but the future anterior of *what I shall have been in the process of becoming*" (Lacan, quoted in Macey 1988, 105; emphasis added). For Lacan, as for a number of his contemporaries, the subject is a product neither of intro- nor retro- but of *extro*-spection, of a looking outside and forward:

As a being-in-the-world, man has a project, that is, a sense of the future, something he wants to do. Thus, he projects his life from the point he is at into the future. Heidegger originated the very important existentialist concept of the "project." I am *here* physically, but I *project* myself into the future, and I conceive of what I want to do. It is on the basis of what I want to do that I can experience difficulties and obstacles. Sartre developed this point at length: things are not obstacles in and of themselves, they are only obstacles if you want something. It is because you want something to happen further along that retroactively things are experienced as obstacles. (Miller 1988, 10)

THE FUTURE ANTERIOR

For Lacan, the subject is a being-in-process, not something that *was* or *is*. Bruce Fink, for instance, notes how Lacan "never pinpoints the subject's chronological appearance: he or she is always either *about to arrive*—is on the verge of arriving—or *will have already arrived* by some later moment

in time” (Fink 1995, 63). Thus, when Lacan speaks of the subject, he uses either the imperfect tense (which tends to be ambiguous in French) or the future anterior (also known as the future perfect). Lacan, however, as Nestor Braunstein points out, tends to favour “the anterior future of the verb: what will have been” (1988, 53). Unfortunately (or, perhaps intentionally), Lacan’s future anterior constructions often obscure their meaning, so much so, according to David Macey, that “the opacity of the terminology masks the relative ease with which this temporality can be applied” (1988, 105). By way of illustration, Macey offers the following anecdote:

Freud writes to Fleiss and expresses the hope or phantasy that “some-day” a marble tablet will be mounted on the wall of the house where he discovered the secret of dreams, he identifies with the great man he will have been. The history of his recollection of that hope or desire is neither the history of what he *has been* nor that of what he *is*, but the history of what he *will have been* when his discovery will have been publicly acknowledged. (1988, 106; emphasis added)

THE CONCRETE UNIVERSAL

This unsettling temporality explains perfectly the paradoxical nature and path of interstitial objects: they are either on the verge of arriving (hovering on the periphery of consciousness) or they have already arrived (having always been present), their glaring presence obscuring all traces of their instantiation. This is exactly how Gibson’s *Neuromancer*, a novel without a genre, actualized not only its own being as an exemplar of the genre of cyberpunk, but also that of earlier novels that failed to actualize theirs. The transition from potential/contingent (what will have been) to actual/necessary (what has always been) involves two coterminous events: (i) a reconfiguration of the subject’s world view (Symbolic) to accommodate the interstitial object, and (ii) the establishment of a new chain of meaning that situates the object as the culmination of a series of previous instances; each determines the other’s success and requires the interstitial object to function as both a type (genus) and instance (species)

of itself—as a concrete universal.¹⁴ But the interstitial’s transformation of consciousness erases all trace of the subject’s implication in the process, creating the impression that its “discovery” was inevitable. This is the process that allows *Neuromancer* to appear as a *later* instance of the very genre it creates, the dialectical dance of particular and universal that strips necessity of the mantle of truth and places it squarely on the shoulders of contingency, standing the “law” of cause and effect on its head in the process.¹⁵

THE SUBJECT AND TRUTH

From Lacan, we learn that truth is neither a function of language (the Symbolic) nor nature (the Imaginary) but of the subject that submits to the world view (signifying network) *it will have been* integrated into. For, as Slavoj Žižek notes, “meaning is not discovered, excavated from the hidden depth of the past, but constructed retroactively—the analysis produces the truth; that is the signifying frame which gives the symptoms their symbolic place and meaning” (1997, 56). It is the process of inquiry, then, the transformation of the inquirer’s consciousness (the analysis) that *determines*, rather than discovers, the “cause” of the circumstances (symptoms) under scrutiny. Žižek’s point is that “as soon as we enter the symbolic order, the past is always present in the form of historical tradition and *the meaning of these traces is not given; it changes continually* with the transformations of the signifier’s network”; consequently, “every historical rupture, every advent of a new master-signifier, *changes retroactively the meaning* of all tradition, restructures the narration of the past, makes it readable in another, new way” (1997, 57; emphasis added). This enigmatic temporality of the subject should not, however, be conflated with its demise or “death,” for Lacan is neither a postmodernist nor a post-structuralist, since he abandons neither the subject nor meaning. Žižek, in fact, targets such misconceptions in *The Sublime Object of Ideology*: “Against the distorted picture of Lacan as belonging to the field of ‘post-structuralism,’ the book articulates his radical break with ‘post-structuralism’; against the distorted picture of Lacan’s obscurantism, it locates him in the lineage of rationalism” (1997, 7).

With respect to meaning, Jacques-Alain Miller notes how Lacan “stressed the importance of seeking the laws of meaning. He didn’t consider meaning to be some kind of dainty thing floating in the air here and there which alights on something, gives it a meaning, and then disappears.” For Lacan, “the fact that meaning is grounded in the subject—the fact that meaning is not a thing—does not imply that there are no laws of meaning.” The subject is central to Lacan’s work, but Lacan, like Heidegger, “defines the existence of man not as interiority, an inner something like ideas or feelings, but rather as a constant projecting outside” (1988, 10–12). It is because Lacan grounds meaning in the subject that truth, as the subject, is a function neither of what was nor of what is, but of *what will have been*, hence Žižek’s paradoxical but characteristically Lacanian response to the question:

From where does the repressed return? . . . From the future. Symptoms are meaningless traces, *their meaning is not discovered*, excavated from the hidden depth of the past, but *constructed retroactively—the analysis produces the truth*; that is, the signifying frame that gives the symptoms their symbolic place and meaning. (1997, 55–56; emphasis added)

TRUTH AS REDEMPTION

This redemptive conception of truth is not unlike that sketched out by Benjamin in his unfinished *Passagen-Werk*. In her ovarian study of Benjamin, *The Dialectics of Seeing: Walter Benjamin and the Arcades Project*, Susan Buck-Morss notes how Benjamin resolves a lacuna in Marx (how, exactly, the transition to socialism would take place, which subsequently conjured the spectre of economic determinism) by attributing the transition to changes in the superstructure, as opposed to the economic base, to “a separate (and relatively autonomous) dialectical process, ‘no less noticeable . . . than in the economy,’ but proceeding ‘far more slowly.’ It is this dialectic that makes possible the transition to a socialist society” (Buck-Morss 1989, 124). Not only does this dialectic unfold in a space highly reminiscent of the unconscious, Žižek’s “signifying frame” (“it plays itself out between the collective imagination and the

productive potential of the new nature that human beings have brought into being, but do not yet consciously comprehend”), it is also “developed not by burying the dead past, but by revitalizing it” (124). It was clear to Benjamin that “if future history is not determined and thus its forms are still unknown, if consciousness cannot transcend the horizons of its sociohistorical context, then where else but to the dead past can imagination turn to conceptualize a world that is ‘not-yet?’” This redemptive inversion, moreover, “satisfies a utopian wish: the desire (manifested in the religious myth of awakening the dead) ‘to make (past) suffering into something incomplete, to make good an unfulfilled past that has been irretrievably lost” (124). Thus:

The socialist transformation of the superstructure, which begins within capitalism under the impact of industrial technology, includes *redeeming the past, in a process that is tenuous, undetermined, and largely unconscious*. As a result of the distortions of capitalist social relations, the progressive and retrogressive moments of this process are not easily discerned. One of the tasks that Benjamin believed to be his own in the *Passagen-Werk* was to make both tendencies of the process visible retrospectively. (124; emphasis added)

Benjamin’s redemption of the past, wherein for instance, all previous attempts at revolution (1789, 1830, 1848, 1871, 1917) may be redeemed by a subsequent successful revolutionary act, should not be conflated with the more commonplace notion that the victors get to write history. Benjamin, as Lacan, recognizes that redemption involves much more than simply constructing a supplementary account of what occurred previously. Even when a single account suppresses all others, as is often the case when totalitarian regimes accede to power and a single, “official” version of history emerges, the past is not redeemed. Redemption involves replacing the very ground, the fantasy space, the signifying network, or screen upon which the various accounts are foregrounded and compete for supremacy. This is the truly ideological space, the ground that determines the very terms upon which competition can take place, the very parameters of meaning. It entails much more than a simple shift in perspective.

INTERSTITIAL VERSUS MUNDANE OBJECTS

At first glance, the adoption of a new world view or symbolic order appears to differ little from the adoption of a new perspective. But the shift from one signifying frame to another involves something far more radical than a simple change of perspective. Take, for instance, the infamous “shower scene” from the once-popular television series *Dallas*. In the opening scene of a new season, the meaning of the whole previous season was “rewritten” as nothing more than a figment of the imagination, a dream, of one of the central characters. This ingenuous inversion, which involved a simple change of perspective, proved not only unsatisfying but also unconvincing to most viewers, since it left far too many issues unresolved. But let us suppose the whole previous season had been written with the idea of later depicting it as a dream. There would certainly have been fewer inconsistencies, perhaps none, in fact. The inversion, nonetheless, would have remained unsatisfying and unconvincing to many. Why? Because such a guileless inversion does nothing more than add another perspective to those that already exist, to those created by viewers themselves and representatives of the popular media. To be truly convincing, to be truly persuasive, a new reading must do much more than simply offer an alternative account. This is what distinguishes a shift in perspective from a shift in the signifying framework, and explains why those works of cyberpunk that “preceded” Gibson’s *Neuromancer* remained as particular instances of novels without a genre (alternative perspectives) until the genre of cyberpunk emerged with *Neuromancer* to redeem them as precursors to a new present. A rather telling comment accompanies a Wikipedia listing of cyberpunk novels: “These works could be labeled cyberpunk’s ‘precursors,’ *but a causal connection is not always clear*” (emphasis added).

A shift in the signifying framework only occurs when one perspective, one interpretation among many, begins to function as the only *possible* interpretation—when, for example, one species among many begins to function as its own genus, when a Particular assumes the role of the Universal. Once that interpretation is adopted, every perspective that preceded it is reinterpreted, recoloured, as an instance in a chain of inevitable events leading up to that interpretation’s ineluctable emergence. A

perfect example of this retroactive effect is the manner in which capitalism, once it was firmly established, reinterpreted all previous modes of production as moments in its own process of development:

In all forms of society there is one specific kind of production which predominates over the rest, whose relations thus assign rank and influence to the others. It is a general illumination which bathes all the other colours and modifies their particularity. It is a particular ether which determines the specific gravity of every being which has materialized within it. (Marx [1857–58] 1973, 106–7)

Marx, according to Žižek, understood the retroactive effect of meaning fully, looking not to the historical origins of capitalism for its truth but to its fully developed form. Thus Žižek remarks “of the famous proposition from Marx’s *Grundrisse* according to which ‘the anatomy of man offers us a key to the anatomy of monkey’” that “we should not forget for a single moment that we do not ‘derive man from monkey’: all we effectively do is reconstruct the process backwards, from the standpoint of the finished result” (2008, 209). Michel Foucault falls prey to this very trap when he tries to trace the origins of modern sexuality to some event in the past; this is why he is forced to the very origins of Western society in ancient Greece, where the cause still eludes him. The paradox Foucault fails to come to terms with is that meaning is a function of past events being incorporated into a signifying network at a later date—of *what will have been*—not of something inherent in the context or nature of past events themselves.

FROM CONTINGENCY TO TRUTH

The psychoanalytic term for the condition that makes the emergence of a new world view possible is “transference,” and even an understanding of how the process works is no protection against its effect—*les non-dupes errent*. An analysand, for instance, who succeeds in catching his or her analyst in an inconsistency, who is in-the-know, so to speak, does nothing more than prove that transference has already taken place; otherwise he

or she would have no interest in proving the analyst wrong or mistaken. Žižek suggests that the theologian Pascal exhibits at least an implicit understanding of transference when he bids those unable to accede to his rational proof of God to overcome their reluctant passions by submitting themselves to blind ritual, to simply act *as if* they believe: “Pascal’s final answer, then, is: leave rational argumentation and submit yourself simply to ideological ritual, stupefy yourself by repeating the meaningless gestures, act as if you already believe, and the belief will come by itself” (1997, 39).

This Pascalian method of conversion can be witnessed in millions of recovery groups around the world. Just as Pascal’s reluctant converts to Catholicism were urged to overcome their reluctant passions by confessing their impotence and inability to believe, so too are neophyte recovering substance abusers bid to admit their powerlessness over alcohol or drugs and to place their trust in a “higher power”—something other than their own reason (often the group or an individual sponsor for atheists and agnostics). Simply by not drinking or using, attending meetings, and following the lead of recovered abusers, struggling substance abusers find themselves, suddenly, believing not only what they could not believe but also that their newfound belief is something they believed even before they believed it! “What distinguishes this Pascalian ‘custom’ from insipid behaviorist wisdom (‘the content of your belief is conditioned by your factual behavior’) is the paradoxical status of *a belief before belief*: by following a custom, the subject believes without knowing it, so that the final conversion is merely a formal act by means of which we recognize what we have already believed in” (Žižek 1997, 40).

This is exactly why an integrated model of interdisciplinarity, no matter how critically engaged with the given, is not up to the task of creating new interpretive frameworks and new objects of knowledge without abandoning meaning and the promise of truth. Only an interstitial mode of inquiry such as that proposed by Lacan is up to that task. This is why it is necessary to replace AU’s integrated model of interdisciplinarity with an interstitial mode. An interstitial mode of inquiry redirects the inquirer’s gaze from the lure of the given to the grounds for its very possibility, identifying the subject as the location and origin of truth, as opposed to nature or ideas—realism or idealism, in all their variants. Only

an interstitial mode of inquiry has the potential to truly transform the inquirer by alerting her or him to how knowledge is created through the pursuit of truth. It is imperative that students of interdisciplinarity appreciate their own role in producing the knowledge they seek, and that their pursuit of truth open new pathways to knowledge rather than reinforce preconceived convictions. This is an unending task, for whatever world view eventually displaces scientism will attempt to maintain its own order by masking the grounds of its own possibility; such is the nature and force of the Symbolic. This is why Žižek concludes:

The duty of the critical intellectual—if, in today’s “postmodern” universe, this syntagm has any meaning left—is precisely *to occupy all the time*, even when the new order (the “new harmony”) stabilizes itself and again renders invisible the hole as such, *the place of this hole*, i.e., to maintain a distance toward every reigning Master Signifier. (1993, 2)

Lacan invested much time and effort into learning how best to bring others to this realization, but recounting that process is, unfortunately, beyond the scope of this essay.

NOTES

- 1 Julie Thompson Klein proposes a very similar tripartite taxonomy: (i) “Multidisciplinary approaches juxtapose disciplines, adding breadth and available knowledge, information, and methods”; (ii) “Interdisciplinary designs go further . . . subjects and disciplines become tools for studying a theme, a problem, a question, or an idea”; and (iii) “with ‘transdisciplinary’ approaches . . . disciplinary and subject boundaries are blurred and connections magnified in a new organizational framework that . . . transcend[s] the narrow scope of disciplinary worldviews through an overarching synthesis” (2006, 13–14).
- 2 In her essay in this volume, Julie Thompson Klein describes this critically reflective attitude in terms of a new rhetoric of interdisciplinarity that emerged toward the end of the twentieth century: “The new rhetoric in humanities signalled the evolution of a form of ‘critical interdisciplinarity’ that countered ‘instrumental’ goals aligned with ‘strategic,’ ‘pragmatic,’ and ‘opportunistic’ motivations. Instrumental goals are prominent in economic, technological, and scientific problem solving, especially in science-based areas of international economic competition such as computers, biotechnology,

manufacturing, and industry. In this instance, interdisciplinarity serves the needs of the market and national priorities without regard for questions of epistemology or institutional structure. In contrast, ‘critical interdisciplinarity’ interrogates the existing structure of knowledge and education, raising questions of value and purpose that are silent in instrumental forms lacking reflexivity.”

- 3 In brief, the scientific world view holds that the world comprises insentient and sentient objects, that the existence of the former can be validated by the latter through passive observation and the exercise of analytic reason, that the actions of said objects conform to universal laws, and that the veracity of claims regarding those actions be judged in terms of their predictability and falsifiability. This world view continues to facilitate remarkable advances in the realm of science but has permeated and come to dominate Western thought to such an extent that “scientism” has become a synonym for thinking, whether scientific, economic, political, or moral. It is typically scientism that postmodernists and post-structuralists abhor, but the scientific world view bears the brunt of their vitriol.
- 4 “‘Scientism’ means science’s belief in itself: that is, the conviction that we can no longer understand science as one form of knowledge, but rather must identify knowledge with science”: Jürgen Habermas ([1968] 1981, 4).
- 5 As Michael Welton notes in “Master of Arts–Integrated Studies Self-Assessment” (2006), part of an internal program review commissioned in 2005: “The MAIS program makes indelible impressions on its participants, even though it leaves a few of them exhausted at the end! Several students have found MAIS to be life changing. One student expressed this sentiment dramatically: ‘I realized that I was a different person after I finished MAIS; exhausted but looking through many new lens [sic] than four years previous. I thought differently, considered the world differently, approached problems differently; I was a much more critical thinker. I wasn’t ready to stop . . . I wanted to learn more . . . and missed the program for a long while after I graduated.’ Another student thought that MAIS had ‘changed me—it’s mainly about the kind of person I am—I’m on a self-improvement project lifelong and I found that what I learned I incorporated into my life (praxis)—the “being” piece. Leadership was a big one for me as was transformatory organizing—helping people locate their power, find their voice—bringing out the leader in others.’
“Some students identified specific dimensions of the life-changing experience. One commented: ‘It has confirmed in me that this is my orientation in life and that it is a respectful, considerate and intelligent one.’”
- 6 Regarding literary theory, Fenkl (2003) comments: “I had been familiar with various (now popular) theoretical approaches to texts, which examine their ‘liminality’ or ‘hybridity,’ often applying terms with the prefixes ‘inter’ or ‘trans’ (‘intertextuality’ and ‘transnationality’ to give two examples), but these approaches all rely on an implicit notion of dichotomy combined with the idea of moving from one state to another or combining (intersecting) one thing with another.”

- 7 It's challenging for Westerners to think outside the either/or "box," so Warren Senders, in his essay "Music and Categories," draws on a "lightbulb" joke to illustrate the paradoxical nature of such (interstitial) objects: "Remember the Zen Buddhist lightbulb joke? The punchline (not particularly funny, but pretty accurate) goes: 'Three. One to screw it in, one to not screw it in, and one to neither screw it in or not screw it in.'"
- 8 See <http://www.crockford.com/wrrrld/wilkins.html>. Subsequent quotations of Borges are from this translation of the essay.
- 9 This is the section of Borges's essay on Wilkins's universal language that Michel Foucault famously quotes, without attribution, in *The Order of Things: An Archeology of the Human Sciences* ([1966] 1994, xv). To reinforce his point on the arbitrary nature of taxonomies, Borges further notes: "The Bibliographic Institute of Brussels exerts chaos too: it has divided the universe into 1000 subdivisions, from which number 262 is the pope; number 282 the Roman Catholic Church; 263, the Day of the Lord; 268 Sunday schools; 298, mormonism; and number 294, brahmanism, buddhism, shintoism and taoism."
- 10 "DoD News Briefing—Secretary Rumsfeld and Gen. Myers. February 12, 2002, 11:30am EST," available at <http://www.defense.gov/Transcripts/Transcript.aspx?TranscriptID=2636>.
- 11 "If Rumsfeld thinks that the main dangers in the confrontation with Iraq were the 'unknown unknowns,' that is, the threats from Saddam whose nature we cannot even suspect, then the Abu Ghraib scandal shows that the main dangers lie in the "unknown knowns"—the disavowed beliefs, suppositions and obscene practices we pretend not to know about, even though they form the background of our public values": Slavoj Žižek (2004).
- 12 Welton notes in "Master of Arts—Integrated Studies Self-Assessment": "The MAIS experience does work for many: their outlooks appear to expand, they don't take so much for granted in their everyday lives, they often become more acutely aware of injustice in the world" (3–4).
- 13 As Fenkl (2003) observes: "Interstitial works are also self-negating. That is, if they become successful to the degree that they engender imitations or tributes to themselves, or, if they spark a movement which results in like-minded works, then they are no longer truly interstitial, having spawned their own genre, subgenre, or even form. . . . They may emerge, like William Gibson's *Neuromancer*, as something *sui generis* (ironically within a genre) but then their very success creates a category—cyberpunk—that becomes its own genre and retroactively, in the midst of controversy, quickly manifests a historical trajectory that precedes *Neuromancer* itself."
- 14 "A term introduced by Hegel to correct the traditional view that a universal is abstract through referring to the common nature of a kind of entity by abstraction. Hegel held that a universal is concrete rather than an abstract form. A true universal is not a mere sum of features common to several things, but is self-particularizing or self-specifying": "Concrete Universal," *Blackwell Reference Online*, <http://www.blackwellreference.com/public/>.

- 15 Žižek, following Fredric Jameson, labels interstitial objects “vanishing mediators” because they mediate “the transition between two opposed concepts and thereafter disappear. . . . Žižek sees in this process evidence of Hegel’s ‘negation of the negation,’ the third moment of the dialectic. The first negation is the mutation of the content within and in the name of the old form. The second negation is the obsolescence of the form itself. In this way, something becomes the opposite of itself, paradoxically, by seeming to strengthen itself”: “Slavoj Žižek—Key Ideas,” <http://www.lacan.com/zizekchro1.htm>. The article draws on Tony Myers, *Slavoj Žižek* (London: Routledge, 2003).

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