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CHRONOTYPES

*The
Construction
of
Time*



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Time in Physical and Narrative Structure

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WHEN THE READER turns to a text, he conceives of the narrated events as ordered in time. When the natural philosopher turns to the world, he also conceives of its events as ordered in time—or lately, in space-time. But each has the task of constituting this order on the basis of clues present in what is to be ordered. Interrogating the parallels to be found in their problems and methods, I shall argue that in both cases the definiteness of the relation between the order and what is ordered resides mainly in how the matter is to be conceived, and is underdetermined by the facts.

Constructing Order in Narrative Time

Everyone expects an analytic philosopher to be analytic. So I shall start by taking as example the most analytic story I know. It is Dino Buzzati's "The Seven Messengers." Here are a few excerpts:

- (1) Having set out to explore my father's kingdom, I go on day after day, drawing away from my city, and the news that reaches me becomes increasingly more infrequent.

I began the journey when I was little more than thirty years old, and more than eight years have passed, exactly eight years, six months, and fifteen days of uninterrupted travel. I believed, at my departure, that I would have easily reached the borders of the kingdom in a few weeks, but I have continued to encounter always new people and regions.

- (2) Although carefree—much more than I am now!—I was preoccupied with the possibility of communicating with my family during the journey, and from the knights of my guard I selected the seven best to serve as my messengers.

Ignorant of my real situation, I supposed having seven of them was an utter extravagance. As time passed I perceived that on the contrary they were ridiculously few; and yet none of them has ever fallen ill, or run into brigands, or ridden his horse to death.

- (3) To distinguish them easily, I gave them names with alphabetical initials: Alessandro, Bartolomeo, Caio, Domenico, Ettore, Federico, and Gregorio.

Unaccustomed to being away from my home, I dispatched the first, Alessandro, as early as the second night of the journey, when we had covered eighty leagues. The night after, to assure the continuity of the communications, I sent the second one, then the third, then the fourth, consecutively, until the eighth night of the journey, on which Gregorio departed. The first had not yet returned.

He arrived on the tenth night while we were pitching camp in an uninhabited valley. I learned from Alessandro that his speed had been inferior to my expectations: I had thought that proceeding alone, he could cover a distance twice ours in the same time; instead he made only one and a half. In one day, while we advanced forty leagues, he devoured sixty. . . .

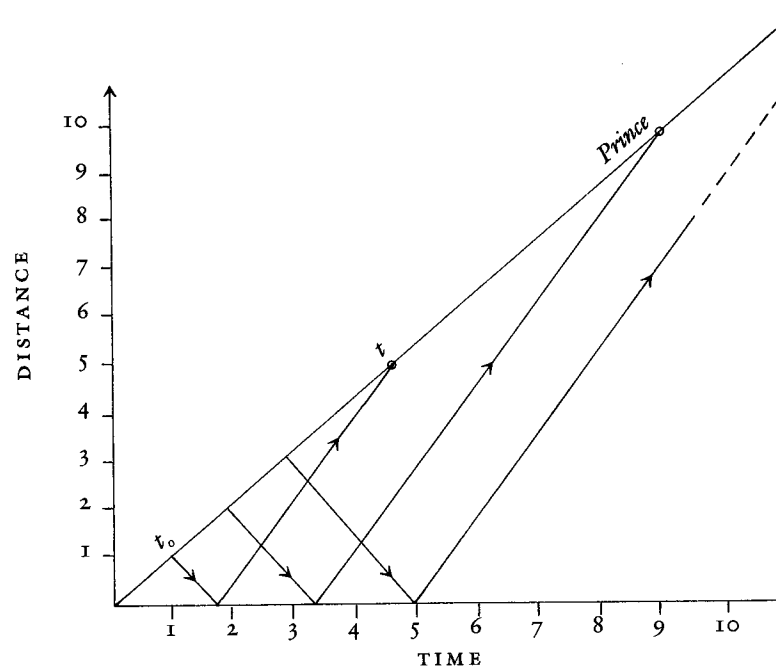
I very quickly noted that it was sufficient to multiply by five the days elapsed thus far to know when the messenger would catch up with us.

- (4) But eight and a half years have passed. Tonight I was having supper alone in my tent when Domenico entered, still able to smile though overcome with fatigue. For almost seven years I had not seen him. Throughout this very long period, he had done nothing but hurry, across grasslands, woods, and deserts. . . .

He will leave again for the last time. In my diary I have calculated that if all goes well, if I continue my journey as I have done till now and he continues his, I will again see Domenico only when thirty-four years have passed. I will then be seventy-two years old. Yet I begin to feel weary, and it is probable that death will seize me before that time. So I shall never see him again.

- (5) You are the last link with them, Domenico. The fifth messenger, Ettore, who will reach me, God willing, in a year and eight months, will not be able to leave again because he would never have enough time to return. After you, silence, O Domenico, unless I finally find the longed-for boundaries. But the more I proceed, the more I become convinced that the frontier does not exist.¹

The narrator of "The Seven Messengers" structures the time sequence with an algebraic formula. Perhaps because I stem from the culture of Vermeer and Mondrian, I have translated this formula into geometry (see Figure 1).



Unit of distance: one *princeling* = one Prince's day's journey
 Messengers' speed: 1.5 times the Prince's speed
 Prince-line: slope 1:1 (i.e., speed 1 princeling per day)
 Messenger-lines: slope 1.5:1 (i.e., 1.5 princelings per day)

Distance traveled by a messenger must equal both:

- (a) return journey to capital (t_0 units) plus journey to catch up with the Prince (additional t units)
 (b) time messenger spends away from Prince, multiplied by messenger's speed.

Thus, $(t + t_0) = 1.5(t - t_0)$, and therefore, $t = 5t_0$.

Messenger return days (Domenico is indicated by [])

2	3	4	[5]	6	7	8	
10	15	20	[25]	30	35	40	{1-6 wks}
50	75	100	[125]	150	175	200	{1-7 mos}
250	375	500	[625]	750	825	1,000	{8 mos-3 yrs}
1,250	1,875	2,500	[3,125]	3,700	4,125	5,000	{3-12 yrs}
...			[15,625]	...			42.9 yrs

Fig. 1. The journeys in Dino Buzzati's "The Seven Messengers."

The Prince narrates this story in his thirty-eighth year. The last messenger he could ever hope to see return will leave tomorrow; the next to arrive, Ettore, will make no further trips to the capital. In only eight and a half years, the Prince has placed himself at an unbridgeable distance from his home and origin. There is no sabotage of time structure; the story is sequenced in the strictest, most straightforward way it could be.² Yet it startles and dismays us by the insight it brings into our time frame, the inexorable passing from birth or home to death or eternity, and the distortion of time in the perspective of our transient now.

It is more usual for a text to eschew this mathematical exactitude, and in any case, to leave the task of constructing the time frame of the story largely to the reader. Indeed, this construction is one of the reader's primary tasks as he goes along. Play with this imposed, ever-present task leads to structures that go beyond the imitation of memory—even for memories of prevision, previsions of the memory of prevision, and so forth, as paradigmatically exploited by Proust—to the invention of forms peculiar to texts.

One example, still relatively straightforward, is Thornton Wilder's *The Bridge of San Luis Rey*. We are told that this is a record made by a Franciscan, in eighteenth-century Peru, of the simultaneous deaths of five travelers. But we gain no acquaintance with this Franciscan, nor do we enter into his memory. The unity of the presented narratives lies in their simultaneous end. That final correlation is supplemented backward, so to speak, only in some fragmentary ways: the reader's assumptions of normalcy can latch onto the clues about approximate ages, incidental overlaps of the biographies, and echoes of events from these lives in each other.

Narratively more exciting is the subtle, innovative play with time in Ford Madox Ford's tetralogy, *Parade's End*. This already begins, though modestly, in the first volume's first paragraph: a simple past-tense description of two young men in a railway carriage, suddenly interrupted by the interpolated revelation "—Tietjens remembered thinking—" It was not really these events that were being related, but the memory of them. The main example, an episode that will continue to gain significance in retelling, comes in chapter 7. As we start reading the chapter, we are with Tietjens and Valentine on their long, all-night drive, but we do not know whether we are near its beginning or near its end. The timeless character that this long night has for them is reflected in the narrative dislocation in time and reinforced by the characters' dislocation in space. Every detail is perfectly clear, but vague in its location, so that even voices nearby come

as if displaced by ventriloquists. Beginning, duration, and end—the when as well as the where—are removed from awareness, which has, of course, its powerful reasons to keep them at bay. Slowly the inevitable clues accumulate, the potentialities of the night condense, place-names appear, the dawn approaches, the reader retrospectively constitutes the duration and internal order of the night.]

There is a similarly dislocated beginning for Ford's second volume, *No More Parades*. We are with Tietjens's wife, Sylvia, as she gets up from luncheon carrying her plate. The first volume has ended at the end of that long drive, still some years before World War I. In this new moment, in Sylvia's consciousness, references begin to appear to that war. We now relate the narrated events to our own history, to England and France. A reference to "the early days of the Great Struggle" surely moves us several years forward even from 1914? Suddenly, a dozen pages after the first line, Sylvia throws the entire contents of her plate; and we see Tietjens there in the room with her, for she throws it at him. He is in uniform. We have come five or six years since that drive in the country; we are in London, at war. While a salient example, this is not atypical of the narrative technique elsewhere: the scene begins, crystalline in every detail, but the moment is vague; then it slowly distills and becomes precise as memories and incidents appear and demand to be ordered, placed, located in time.

Today, of course, experimentation in narrative structure is no novelty; even the sabotage of the reader's task in, for example, the novels of Robbe-Grillet is—we now realize—but an exaggeration of the willful game author has always played with reader.³ This was true even in those times when Aristotle's unities of time and place were taken to be definitive of effective literature. The reader correlates biographies of character and narrated events with each other and with his own history. But he does so always under the threat of reversal: the author's freedom to subvert later the expectations he has deliberately played on before is always part of the context of reading. Thus the correlation, the constitution of order in time, remains conditional and tentative until the end of the text. We have an ideal frame—we conceive of the events as in some definite order—but no rigid frame of reference. The locational function of each clue in the narrative, whether it refers to other parts of the narrated episodes or to episodes such as the World War in the readers' presumed common history, must thus remain fragile, equivocal, and undermined by the rights of future narration. Therefore the construction of narrative time is always essentially internal to the text, even when the text gives every sign of wanting to be related to extratextual reality.

The Relational Theory of Time

Perhaps some of you have come to this paper with the question whether or not time is real. Well, let me answer that right away. It is not—time is not real. Some philosophers disagree, but that is my view.

However, I mean this strictly and literally. Outside philosophy, people are not used to strict, literal speech. Ordinary discourse is much too poetical for philosophy. Some time ago, a telephone salesman called, and asked me brightly, "May I speak to Mrs. van Fraassen, please?" Now, I am not married. And I am a philosopher. So I answered him with the strictly literal truth. I said, "Mrs. van Fraassen does not exist." There was a ghastly silence for a moment; then he said "Oh . . . I am *so* sorry, . . . I didn't know. . . ."

Time is not real, time does not exist, there is no such thing as time. But events occur in some sort of order, some after others, some before, and some simultaneously. To me, that is no different from saying that an abstract entity such as the color spectrum is not one of the things in the world, nor is the *whale*, nor the fall of night—although there are colored things, which match or clash with each other, and individual whales, which give birth to other whales, and the paradoxical deepening and fading of colors at sunset. In this view about time, I oppose of course Newton's:

Absolute, true, and mathematical time, of itself, and from its own nature flows equably without relation to anything external. . . . For times and spaces are, as it were, the places as well of themselves as of all other things. All things are placed in time as to order of succession; and in space as to order of situation.⁴

I also oppose the views of some of my contemporaries (for I would say the same about space-time as about time, *mutatis mutandis*).

Given this disagreement, however, I face a task: to explain how time order is constituted by means of, or on the basis of, relations between the events and processes to be so ordered. That is the proper task attempted under the banner of the *relational theory of time* (and space, and space-time).

At this point I'm sure you can see the intimate relation, for me, between narrative time and physical time. For I believe the constitution of time in our construction of the real world is not different in essential character from the constitution of time by the reader in his construction of the narrated world as he reads the text. I would like to discuss the principles of this construction briefly, under several headings.

Time as Causal Order

Leibniz outlined the first construction of time order from causal order:

Given the existence of a multiplicity of concrete circumstances which are not mutually exclusive, we designate them as contemporaneous . . . we regard the events of past years as not coexisting with those of this year, because they are qualified by incompatible circumstances.

Time is the order of non-contemporaneous things. It is thus the universal order of change in which we ignore the specific kind of changes that have occurred.

When one of two non-contemporaneous elements contains the ground for the other, the former is regarded as the *antecedent*, and the latter as the *consequent*.⁵

This passage marks a turning point in the history of the theory of time, the point when the analysis first directed itself properly to time order and not merely duration. From our present point of view it is remarkable also in how closely it relates the constitution of physical time to that of time in narrative. Compare the passage that begins the Russian formalist analysis of narrative time structure:

We may distinguish two major kinds of arrangements of these thematic elements: (1) that in which causal-temporal relationships exist between the thematic elements and (2) that in which the thematic elements are contemporaneous, or in which there is some shift of theme without internal exposition of the causal connections.⁶

Compatibility and Self-Identity

In outline, Leibniz's conception is the only possible alternative to an absolute conception of time. If time is not an independently real arena in which each event has its appointed place (as in a diary where the date appears at each entry), then the order of events must derive from their own characteristics and mutual relations. In any case, if Absolute Time were real, we'd still need to ask how an event is located at one instant rather than another. This is the perennial problem with postulated transcendent realities, that they promise to relieve us of such mundane work (as explicating the order of events in their own terms) but then are impossible to relate to the world they promised to set straight for us.

However, Leibniz's conception itself has many problems. At first sight, it is simple enough: use qualitative incompatibility to separate the events that cannot be contemporaneous, then rely on causal order to arrive at a sequential structure. Let us begin with the first idea—that of separation in time.

Compatible events might, unfortunately, still not be contemporaneous. The Prince recalls that the first messenger first returned on the tenth day, while they were pitching camp. Had the Prince and his retinue only just come to a stop, had they just begun sinking the first tent pole, were they fastening the last canopy strap? Perhaps the Prince does not remember—and nothing internal to these events *themselves* will give him the requisite clue. It appears that he would have to relate them to still other events, not recounted in the narrative, to arrive at a judgment of temporal separation.

Indeed, a judgment of relation already plays a role even when non-contemporaneity is inferred from incompatibility. That some messenger is absent is not incompatible with some messenger's having arrived—they are incompatible only if it is the same messenger. So two events are incompatible only if, first, incompatible qualities are involved but, second, these incompatibles inhere in the same subject. This second point requires a relation between these two events—genidentity, the relation of involving the same enduring subject—which is by no means derivative from merely qualitative characteristics.

This genidentity, or enduring identity over time, which was left tacit here, can certainly not be taken for granted at this level of discourse. Indeed, it is a great mystery, severely called into question by Hume, and since then the subject of many failed reductions and ultimately denials. Today such philosophers as David Lewis and Derek Parfit are well known for the denial of enduring self-identity over time; their doctrines are especially provocative when applied to persons.⁷ There is an intermediate position that says there are only events (which are momentary states), but there is a special relation between them, again called "genidentity" but not definable in any way. What we call the history of an object is just a class of events connected by this special relation. On this position, Leibniz's construal of temporal separation still does not work, since there is no *logical* force to the claim that genidentical events involving incompatible properties must be nonsimultaneous.

When the identity of an object over time is clear, the incompatibility of ascribed characteristics is certainly a definitive clue to temporary separation. But even relatively clear instances of incompatibility give at best mixed indications of time order, especially since the incompatible characteristics ascribed are usually relational in some way themselves. A typical illustration is provided in the following passage from Gérard Genette, where the incompatible characteristics are the relational ones of *sleeping in* different rooms: "The first temporal section of the *Recherche* . . . evokes a

moment that is impossible to date with precision but that takes place fairly late in the hero's life. . . . One of the rooms evoked is that of Tansonville, where Marcel slept only during the visit recounted at the end of *La Fugitive*.²⁸ It seems clear therefore that the relational theory of time will have to rely almost entirely on relations, and that merely qualitative aspects help constitute time order only very little.

The Causal Order

The passage I quoted from Leibniz continues, very revealingly, to spell out his hopes for causality as constitutive of time order: "My earlier state of existence contains the ground of the later. And since, because of the connection of all things, the earlier state in me also contains the earlier state of the other thing, it also contains the ground of the later state of the other thing, and is thereby prior to it." For this reason his version of the relational theory is called a causal theory of time.

But causality is a thoroughly theoretical notion. Is there really a fact of the matter? Or is causal structure our projection on the world? Some philosophers say the one, and some say the other. None says it is immediate and transparent to the intellect. It poses in any case the same problem as time itself. Either we postulate a relational structure that connects the events "from outside" as it were—a primitive relation that could in principle be there or not, independent of more mundane characteristics—or else we attempt to constitute the causal order on the basis of those more mundane characteristics and connections. If we do the former, we have not replaced Absolute Time with something more intelligible. If we do the latter, we are in effect continuing to construct the natural order without recourse to causality as such.

It is no accident that, in the above quotation from Leibniz, the reference is through a personal pronoun—but it is remarkable to find that reference in any essay on the foundations of geometry, time, and space. This conception of causality, which describes it as a relation of containment, indeed of logical implication, is quintessentially rationalist. It reveals—or should I say, betrays?—the heart of the great seventeenth-century unification in ontology of personal being and nature. But this synthesis was already disintegrating as Leibniz wrote. The conception of events, or states of affairs, as internally related did not survive in a natural philosophy oriented toward modern physics, at least not under the renewed onslaught of empiricism.

The difficulties are by no means a mere phantom of empiricist prejudice. In what sense could one physical event or circumstance contain the

ground for another, how could there be an implication between events? This is precisely the point where the rupture between the modern view of material, physical reality and the categories of the personal becomes visible.⁹ We can see such "internal" relations between events when the events are "intentional," that is, when they are acts characterizable essentially in terms of the intention involved. But we are unable to find intentionality in the world of physics—such characteristics are not physical characteristics. The regularities described by physics are simply the patterns in which events occur, as a matter of contingent fact.¹⁰

Consider Sartre's play *Dirty Hands*. There is no logical connection between the physical movement of Hugo's finger on the pistol trigger and Höderer's death. There is a logical connection between that death and Hugo's act of shooting Höderer on the orders of the Party. The relationship is still not one of implication, but there is now in the first act's description a reference, in the intention attributed to Hugo, to Höderer's foreseen death. This intentional language, entirely absent from modern physics, contains the paradigm for the rationalist view of causation.

At this point, if we are interested specifically in narrative time, we may be tempted to dismiss doubts about causality as relevant to natural philosophy only. For in literature, we are in the realm of intentionality. After all, given the intention that "governed" Hugo's act, we do have an answer to *why* Höderer died, the causal order is due to what the events themselves were like, and time order is derivative from that. But I chose the example carefully. Any doubt as to the why-because connection has been removed here by the intentional description of the events—but that doubt has not disappeared, it has simply been displaced. For it is entirely ambiguous, in *Dirty Hands*, whether the act was one of shooting on the orders of the Party. Did Höderer die because of his political acts and the Party's orders? The play raises the disquieting doubt that not only our knowledge but the facts themselves may fail to answer that. Certainly Hugo has no definitive access to an answer—and if he does not, then no one does. Is there a fact of the matter nevertheless? It would be sheer postulation to say so. The idea that causation is a clearly defined, objective structure at least in our actions and personal lives may derive merely from a philosophical wish: that those events are, on the one hand, internally connected by their intentionality and, on the other, as crisp and clear, definitely so or not so, as the events constituting the material world of modern physics.

The narrative text is thus as much an enigma for causality as the natural world. The "because" is conjectural, ambiguous; we are at a loss to find the objective demarcation between inference and fallacy, even in the

most concrete examples—to such an extent that Roland Barthes, in just this respect, begins to equate interpretation and confusion:

There is a strong presumption that the mainspring of the narrative activity is to be traced to that very confusion between consecutiveness and consequence, *what-comes-after* being read in a narrative and *what-is-caused-by*. Narrative would then be a systematic application of the logical fallacy denounced by scholasticism under the formula *post hoc, ergo propter hoc*.¹¹

But when the basis of conjecture becomes so fluid, the very meaning comes into doubt (and not only for verificationists).

Correlation of Histories

The relational theory of time solved its problems in several ways, but mainly by minimizing the role of causality. When two events are connected causally they must at the very least be related either by genidentity (they involve the same body, or at least one persistent entity of some sort), or else they take part in some exchange that constitutes a signal, broadly speaking. But it is only through this minimal sense of connection that time order becomes definite—no further, more mysterious aspect of causation plays a role.

At least, that is the hope. These connections certainly establish sequences, and the sequences overlap because one event can belong to several such sequences. We can also imagine that many such connections are hidden, and would come to light only if investigated. But it is easy to see that in principle, great indefiniteness may remain. The facts *underdetermine* the time order, unless we include purported *modal* facts about what might, would, or could have happened.¹² To this curious ingression of the possible, we turn next.

Time and Possibility; Reality as Text

There is one great difference between reality and fiction. We all know what it is. You can demonstrate it, in imitation of the famous, by kicking a stone, or raising first one hand and then the other. The real is actual and the imagined merely possible. But if this difference is so great, why does it not engender other marks of difference, telling marks of solidity that will delimit and set off and distinguish?

No, this is the curious point, there could be no such mark. For if anything real bears any mark whatever, we can also imagine something (unreal) that bears that same mark. We can even imagine our fictions to be real or imaginary, as in Henry James's "The House on Jolly Corner," in

which the apprehended ghost is after all not real but is—on one reading—merely the man the protagonist would have been if he had lived his life in New York City instead of London.

The Supposed Determinacy of the Real

There is just one way in which philosophers have persistently thought they could find a difference nevertheless. The real world is complete and settled in every respect; an imagined world is indeed *conceived of* as also complete in that way, but is not, for it is definite only to the extent specifically settled by the text. For example, each real Prince of Denmark has or has not had a mole on his left knee—and either has or has not owned an inky cloak. Though we do not know the details, reality has indeed settled it one way or the other. But Hamlet now—it is certainly implied in the text that he is a whole man and therefore had a left knee, and therefore either did or did not have a mole thereon. But this still leaves two possibilities, and the text does not settle that detail. And therefore it may be true of Hamlet that he was *thus-or-so*, but it is not true of him that he was *thus*, nor that he was *so*. Every text being finite in every sense, and with respect to details certainly exhaustible before conception is exhausted, we have here the great supposed difference between reality and what imagination creates.

This robust distinction received a rude shock with the advent of quantum mechanics, for most interpretations of this theory are at odds with the idea of the total determinacy of the real.¹³ But the basic idea is not defeated, for there are constants in the theory that are always determinate in value, while an imagined world could be indefinite in any (logically nontrivial) respect. Earlier, the advent of relativity theory had brought a similar shock, for it denied that the question whether or not two spatially separate events are simultaneous has a determinate and univocal answer. However, the basic idea had been left intact then too, for the theory was immediately developed so as to give us a new catalogue of “absolute” relations, which remain invariant even if we change frame of reference. The earlier notion “simultaneous” had to be reconceived as elliptic for “simultaneous (under convention . . .) in frame . . . ” The basic point remains: science conceives the world as determinate in myriad ways that go beyond our evidence.

However, so does every text. The world presented in a work of fiction is conceived as determinate in myriad ways going beyond the text itself. So we cannot conclude: science underwrites this philosophical explication of reality. We must only say: on that explication, what science describes is

actually one way or another whenever the description says so, while what texts of fiction describe is not. This philosophical idea is in part about how to think of science, and therefore—though it has not been defeated by an inability to provide a reading of these new scientific texts—it clearly cannot be supported by them. We had better look a little further if we are to put it to the test.

Vagueness of Time Order

The indeterminacy of time order in narrative is pervasive, inevitable, and ineradicable.¹⁴ Those characteristics are also typical hallmarks of triviality—what is more universal, and less remarkable, about texts than that they are composed of words? But in this case those characteristics mark a focus of significant narrative strategies as well. The reader expects a certain vagueness and takes it in stride, is quite willing to conceive of the events as determinately ordered somehow within the merely indicated outline—but the narrator, trading on this innocence, may return to those events later in his narration and reveal a hidden significance that undoes our compliance. And we, aware of the obligation of innocent compliance and also of the possibility of narrative subterfuge, read now with this tension of what is not yet settled in the text—which in turn allows the narrator to create his effects by mere feints, by the merest sidelong glance toward the past.

Sometimes the past is as it were nonchalantly revealed: Odette came from de Forcheville's house on the day of the cattleyas. Sometimes the narration reverses itself to the extent that a character loses some aspect of his past that so far served to define him for himself. To some extent this is true in *A Dance to the Music of Time*, when Nicholas, serving with Brent in the army, is forced to “rewrite” the story of his own affair with Jean Dupont, though the task comes at a time when a good deal more has already entered his definition of himself. There is perhaps an added poignancy in the fact that the revision is made when it does not matter so much any more, an added pain felt at seeing how that part of his life has already lost so much to his indifference. This redefinition occurs as much in the reading as in the character since it occurs several volumes after the affair and thus after a long period of compliance by the reader. The redefinition of the past is much more radical in *The Death of Ivan Illich*, though there the revision, not preceded by narration of the past, is more perceived than experienced by the reader. Sometimes also the effect is gained rather from an ambiguity that is never removed. I have already referred to the evoked “moment . . . impossible to date with precision” at

the beginning of the *Recherche*. Much more intricate and tantalizing is the incident with the little girl-cousin with whom Marcel experienced "for the first time the sweets of love"—she remains unnamed, the incident remains at an indeterminate time, datable only imperfectly by reference to his Aunt Léonie's domestic habits.¹⁵

Of course we are to conceive of the incident as having taken place at a determinate instant in Marcel's life. Yet there is no pretending that this narration, which came to an end when Proust ceased to write, still hides a detail that will settle the moment definitely. The question is now: how different is the situation in reality? Can we answer: but it *is* settled, one way or the other, though we don't know which way? Newton would have answered *yes* without hesitation. But how does the question fare on the relational theory of time?

The relational theory of time reappeared in various forms, from Leibniz through Kant, Whitehead, Russell, and Reichenbach to Grünbaum. The problem to what extent the facts determine the temporal order appeared clearly at a certain point in Russell. In Russell's variant, many problems are avoided by postulating that events are of finite extent and overlap quite literally. The overlap is chosen as the basic relation to define all other space-time relations. But will the defined structure be as we had conceived it? Will it be a continuum and ordered in the right way? The answer will depend on how many events there are and how they overlap. Accordingly Russell postulated appropriate answers to these prior questions. But are the postulates true? "Whether this is the case or not," Russell writes in his typically robust fashion, "is an empirical question; but if it is not, there is no reason to expect the time series to be" as we conceive of it.¹⁶

If there actually are only a few events ("few" as the mathematician speaks), we still conceive them as set in time in a determinate fashion. But the structure defined from their overlap relations will not be thus; it may have, for instance, only a partial and not a linear order. Now, Russell has obviously embraced the view that whatever structure is so definable from the actual event overlaps, that structure is time. If the definable structure is not like time was meant to be, so much the worse for time. But, Russell notwithstanding, the philosophical account of time should honor its conception, and failure to accord with that is failure for the account, not for the concept. When we conceive of a universe with few events, that does not change our idea—we do not conceive of that universe as having its own rather curious time—but we ascribe the discrepancy to the fragmentary character of the actual among the possible. There could have

been more events, we think, and they would have filled out the usual structure all right. This is already what Leibniz had insisted on in a controversy with Locke: "The void which can be conceived in time, indicates, like that in space, that time and space apply as well to possible as to existing things. Time and space are of the nature of eternal truths which concern equally the possible and the existing."¹⁷ But the problem remains in a different form: Suppose the actual relations among a paucity of events do not establish a determinate time order. Then *how* would the other possible events have made the order determinate, if they had occurred?

In the preceding section I outlined, in effect, a version of the causal theory of time that followed Reichenbach and Grünbaum. But a paucity of genidentity and signal connections is also conceivable, and would pose the same problem. For Reichenbach, we could put it graphically as follows: if "straight line" or "geodesic" has *light ray path* as physical correlate, what about straight lines in the dark? The actual physical correlates alone radically fail to determine geometric structure, in space, time, and space-time.

In the development of the theory, there was accordingly a shift from actual connection to connectability. The significant relation between two events is not whether they are actually connected but whether they are *connectable*, that is, whether some signal or trajectory, if it had emanated from the one, would have reached the other. But the assertion that time order is made definite by this relation relies on the tenet of *counterfactual definiteness*—that there is a real fact of the matter whether the signal *would* have reached if it *had* been emitted. The postulation of absolute time and its independently existing locations has been avoided at this stage only by postulating a solidity in the possible, by trading on counterfactuals and modality—a maneuver not unfamiliar in other regions of ontology, but of dubious value. Clearly we must take the discussion one stage further.

Reality as Text

In some respects, I am a very old-fashioned realist. There are trees and there are people; I see them, and they are there just as well when I do not look. There is no privileged observer of this reality, nor does observation have any logical connection with existence. Much is hidden from my sight, and from everyone else's as well; that does not make it unreal. But I would say this equally about a text. There is no privileged reader. A new reading aided by reflection on other texts or on experience, or merely by insight, may discover a structure theretofore unnoticed. Other readers may return to see it too. It would be utter sophistry, I think, to say that

this structure was not already there, with equal objectivity, before it was uncovered. Since there is no privileged reading time either, we must perforce add that there must surely be many structures present in the texts we have, as yet hidden but to be uncovered later—or, by human frailty and finitude, hidden forever.

I have no hesitation in putting forward this view; but remember that I am a philosopher and so mean what I say literally, and that logic is mainly the art of showing just how little follows from our premises. This reality of which I have a robust sense need not itself be all that robust, solid, definite. That it has some hidden structure does not entail that *all* questions left unanswered on the surface are definitively settled in the depths!

When Leibniz insisted that time is the order of the possible as well as the actual, he must have realized that this insistence went much more readily with an absolute than with a relational view of time. Yet he continued to deny that time is real. Time, he said rather obscurely, is an ideal entity.¹⁸ Let me say it in a way that is closer to us: time is a logical space. The color spectrum is the logical space for colored things. There is no need to add: and the color spectrum exists, eternally and at peace, in its own transcendent beauty, and so forth. Porphyry's tree is the logical space of everything, the Library of Congress classification is the logical space of all books. We conceive of any possible extended opaque object as determinately located in the color spectrum and of any possible book that might eventually be published as somehow placed in our beloved LC classification. None of this swells our ontology.

But it does not follow that the time order of real events is definite any more than that of narrated events in the *Recherche*. For although books are individually located in LC, only the structure of all events taken as a whole is set in time, since correct "placing" of events is determined by their mutual relations. And there may remain in principle more than one way to determine the placing. Rather than postulate some transcendent criterion of correctness—whether through counterfactual facts or in any other way—I suggest we accept the same imminent vagueness for the order of real events, underdetermined by the facts, as we do for the order of narrated events, underdetermined by the text. In both cases, the world is conceived of as determinate, but the necessity in how things are to be conceived does not engender a necessity in how they must be.

In this I have, I suppose, given up that demarcation between the real and the imagined worlds in terms of determinacy. In the philosophy of science, when a particular tenet of determinacy disappears, one can always add: but the world is still determinate in all the ways in which physics

continues to conceive of it as determinate. In that way the demarcation would be maintained: world and texts would remain fundamentally different. We can indeed always add something like that, but we need not, and I see no loss if we do not. The stones we really live with we can still always kick, our real hands we can always hold up to show. The glory and the terror of this world remain, even if *this* text is not so different in kind from other texts.

POSTSCRIPT CONCERNING REALITY AND FICTION

Reality as Text, Continued

The criterion of demarcation between fictional worlds and the real world, which we examined and found wanting, focused on a certain sort of finitude. In the case of time, we found a parallel between the two worlds: each is conceived of as totally definite but constituted very incompletely by the actual text—which consists of written words in the one case, and of all physical events in the other.

There are other ways in which the finitude of the literary text might distinguish it from reality. Here is a second attempt at demarcation: The real world is not constituted definitely in a single observation or by a single observer. But a single reader can take in, observe, the entire literary text—the entire basis on which the constituted fictional world is erected. Is that not a difference?

There are two objections to this. The first concerns the problem of the definitive text. The second concerns what the reader brings from outside the text, and the extent to which that contribution may have a legitimate, inalienable place in the constitution of the fictional world. If there is no definitive text or if the text is augmented in a certain way by every generation of readers, the cases of fiction and reality are to be seen as parallel in this respect also.

The Question of the Definitive Text

It is certainly not guaranteed that I, one reader of *Parade's End*, have taken in the entire text. In the case of more venerable works, we are well aware of the fragility of historical judgments that declared a certain version definitive. One entire novel, Umberto Eco's *The Name of the Rose*, was written on the question of what the text of Aristotle's *Poetics* really is. We take it that this text lies scattered in bits throughout history—we have

access to two medieval Greek manuscripts and two medieval translations, one into Arabic and one into Latin. There is a one-page remnant of a Syrian intermediary between some Greek manuscript and the Arabic. These sources disagree. All are of the first book of the *Poetics* only. With respect to the remainder, the most we have is a medieval manuscript now in Paris argued to be a summary of the second book, about catharsis and comedy.¹⁹

But if we do not *have* a definitive text, surely there *is* one, namely the physical inscriptions that actually left Aristotle's pen? They are lost, destroyed, but so are all past events in reality; the difference is that after Aristotle's death, what had left his pen is the complete text *ipso facto*, and creation has ended. No death or passing ends the growth of reality—creation continues.

This difference is challenged, however, by the query concerning what exactly the text is. We could arbitrarily end the definition of that text at the end of Aristotle's fingertips, but can we do so with reason? Let us try this general idea: the text is the factual basis for the constitution of the depicted world. Now it is clear that each reader constitutes that world for him or herself, and that this construction introduces many peculiarities that are to be ignored or classified as idiosyncratic. But not all introduced differences are idiosyncratic. A reading is communicated, and scholars communicate the results of such communication, what is agreed to be common and what is not. The next reading is in the light of, and is colored by, this inheritance, this social process, the residue of previous readings. That residue also includes a record in which the narrated events are related to common history and to other literature that postdates the author's death.

The point is, we cannot very well insist on the one hand that the world created by or in the text is never definitively constituted while holding on the other hand that the factual basis for that constitution is unchanging. For the validity of reading the old text in the light of previous readings, for example, elevates the reports of previous readings to new elements of the text. This is so even if "in the light of" means in part "while classifying certain previous readings as incorrect vis-à-vis the text in respect to so-and-so."

Borges has the habit of ambiguity: his irony often consists in a refusal to reveal, avow, or disavow irony. So I can cite "Pierre Menard, Author of the *Quixote*" as both in support and in detraction of the previous paragraph. But Borges's irony would be flaccid, ineffectual, and dead for us if it did not trade on insight and truth. I take it that it is our reluctant, even

resentful surrender to this insight—that Cervantes did not end the process of relevant accretion to the text of *Don Quixote*—that gives the story its force.

The Possibility of Idealism

Here is a third and final attempt at demarcation. Gideon Rosen made it in the following summary form: "Idealism is right for fiction and wrong for the world."

When say "we" or "us" in this philosophical context, we refer to a whole community of persons, of rational beings, stretched out in space and time, past, present, and to come. In the world of the *Recherche* or *A Dance to the Music of Time* there are structures that we shall later agree we had not yet uncovered in A. D. 1988. But are there in this fictional world any structures that it is not within our power or capacity to uncover—that we could not uncover in the future, regardless of how their readership evolves? The fact that this work is a humanly created text—even if not definitively determined by its author alone—makes it impossible to answer that question in the affirmative. Whatever real structure it has, even in the fullness of time, is there because we shall have given it, and hence is accessible to us.

But it is possible to say *yes* to that question if asked about the real world. It is possible that there are aspects of this world we *cannot* ever uncover, which transcend all powers of observation, detection, verification—perhaps even our capacities for theory and conjecture. So it is possible not to be an idealist about the real world, to be a realist (in the sense just described). But it is impossible not to take the idealist position about the fictional world.

Notice that I have amended the assertion in effect from "it is so" to "it is possible for a philosopher to hold." If realism is the position that there are transcendent structures, then realism may be false. But if it is possible for there to be such structures and there are none, we shall also not be able to find that out. So this final demarcation does not point to any definite difference between real and fictional worlds; only to a difference in what one can *tenably* assert about them. Real and unreal are finally distinguished only by the activity of the philosopher!

But that is not so. Certainly, this criterion in terms of tenable philosophical positions is correct. It is very abstract, and I see no less abstract criterion to formulate. Nevertheless, there also remains the difference we cannot formulate but only show: I can only touch *this* flesh, *these* stones, *this* wood.