The Whirligig of Time

Toward a Poetics of Unnatural Temporality

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TIME is a fundamental concept of human experience, and of narrative. Paul Ricoeur begins his monumental *Time and Narrative* with the argument that “time becomes human time to the extent that it is organized after the manner of a narrative; narrative, in turn, is meaningful to the extent that it portrays the features of temporal experience” (3). Most narratologists follow suit. For Shlomith Rimmon-Kenan, time is “one of the most basic categories of human experience” (43); Porter Abbott bases his introduction to narrative on the assumption that “narrative is the principal way in which our species organizes its understanding of time” (3; emphasis in the original) and that, contrary to “mechanical time” and temporal measuring grids, narrative allows “the events themselves to create the order of time” (3–4; emphasis in the original). Time and narrative, then, appear to be both fundamental and inherently inseparable and interdependent concepts.

And yet time is also a highly enigmatic and complex concept. For one, we do not really know what time is. Most lay definitions are tautological: time is something that passes at a certain speed, but that passing of course would have to be measured in time. Physicists regularly commence their discussion of the physics of time by averring that it is hard, if not impossible, to define (Deutsch; Nahin; Greene). Brian Greene, for example, opens his chapter on “time and experience” by writing: “Time is among the most familiar yet least
understood concepts that humanity has ever encountered. [. . .] Even the everyday experience of time taps into some of the universe’s thorniest conundrums” (127). Most physical laws are time-symmetric, in other words, they have no temporal arrow, which gives rise to all sorts of problems and paradoxes. Also, many of our commonsense intuitions about time are scientifically untenable, while what science tells us about the actual nature of temporality is frighteningly counterintuitive. Especially the latter fact has been taken up in a number of narratives about extraordinary temporal scenarios such as diverging timelines or time travel through wormholes.

Second, it is no coincidence that many narratological discussions of time begin with anachrony, that is, the discordance between story and discourse. As Genette, Metz, and many others have noted, narrative is characterized by a doubly temporal sequence, “the time of the thing told and the time of the narrative” (Metz 18). “This duality not only renders possible all the temporal distortions that are commonplaces in narratives [. . .]. More basically, it invites us to consider that one of the functions of narrative is to invent one time scheme in terms of another time scheme” (18). In other words, not only is the “existence of literary narratives embodying the full spectrum of temporal, modal, and aspectual options” a fact (Margolin 159), and, judging by the number of examples that Brian Richardson or Marie-Laure Ryan adduce, quite a common fact at that; it is actually the “various types of discordance between the two orderings of story and narrative” (Genette 35–36) and the resulting temporal complexity that are commonplace, while narratives veering in the

1. In his book Unnatural Voices Brian Richardson discusses a host of examples that confound commonsense notions of logic, causality, order, and so forth and the more rigid models of narratology. One of the terms he introduces is “denarration,” which refers to “narrative negation in which a narrator denies significant aspects of his or her narrative that had earlier been presented as given” (87); such narratives (many by Beckett) render “causal and temporal relations [. . .] dubious” (87). His term is intentionally close to Gerald Prince’s concept of “disnarration,” which refers to events that are referred to but remain unactualized (88). In his essay “Beyond Story and Discourse: Narrative Time in Postmodern and Nonmimetic Fiction,” Richardson concretizes “six kinds of temporal reconstruction that stand out as sufficiently distinctive” (48) in their violation of the mimetic contract: circular (in which the end leads right back to the beginning: Finnegans Wake); contradictory (temporalities that are impossible in the real world: Robert Coover’s “The Babysitter”); antinomic (narratives that move backwards in time: Harold Pinter’s Betrayal); differential (fictional worlds that combine two or more different temporalities in one fictional world, for example when one character ages faster than her surroundings: Caryl Churchill’s Cloud Nine); conflated (the reciprocal “contamination” or spilling over of different temporalities into each other, as in Ishmael Reed’s Flight to Canada); and dual/multiple (where different “times” pass for a different set of characters or place or world, as in the enchanted forest of Shakespeare’s Midsummer Night’s Dream) (48–51). As Richardson generally reminds us, not all texts have a consistent story that is retrievable or deducible from the text. Marie-Laure Ryan also mentions a host of quite varied examples of temporal paradoxes in narrative.
direction of isochrony are unusual, complete isochrony being hard to imagine. Also, as Abbott points out, “narrative time is not necessarily any length at all” (5). If we no longer take notice of the many possible temporal disjunctions and complexities of narrative (e.g., analepsis, prolepsis, ellipsis, summary, stretch), it is because many of them have become relatively easy to naturalize and narrativize for any but the most inexperienced reader. As a consequence, for an unnatural narratology of time to be productive, it has to make a number of important distinctions. In what follows, I will introduce and discuss these distinctions; I will also shortly discuss a number of examples.

If we follow Jan Alber in defining “unnatural” (with reference to Doležel) as “physically impossible scenarios and events, that is, impossible by the known laws governing the physical world, as well as logically impossible ones, that is, impossible by accepted principles of logic” (80), then it becomes clear that, first of all, with regard to time, we have to distinguish between what we assume are the physical laws governing time in the actual world and the actual physical laws. As Marie-Laure Ryan points out, we possess four intuitive and commonsense axioms about time: (1) time flows in a fixed direction at a relatively stable speed, (2) you cannot go back in time against this flow, (3) causes precede their effects, and (4) the past is unchangeable (142–43). Consequently, narratives that subvert one or more of these axioms are almost inevitably situated in the realm of the physically and logically impossible by readers. However, once we take a closer look at the actual physics, it turns out that these assumptions do not necessarily have a correlative expression in physical laws. In fact, modern physics and the rather bizarre consequences of the—experimentally verified—propositions of quantum mechanics and relativity have given the lie to at least two of these intuitive assumptions about time. First of all, it does not flow, nor does it have a speed, because that would be measured by distance over time; also, the division between past, present, and future is arbitrary, the future not being any more malleable than the past.

2. Ryan points out that the temporal arrow can actually be subdivided into more arrows such as a biological, cognitive, or intentional one, all of which may be subverted.

3. It should be noted that while these axioms generally apply, there are situations (mostly extreme and/or traumatic) in which people may experience temporality as much more flexible and unstable than the axioms imply.

4. One of the consequences of Einstein’s special and general theory of relativity is that we should actually conceive of all of time as a kind of bread loaf. All of time is continuously extant: past, present, and future. In fact, the distinction between past, present, and future is physically untenable and seems to exist only in our minds. In this conception of time, the past and the future are always already present and unchanging. What we consider the future is already past from another perspective. Discussions about this missing temporal arrow frequently resort to the second law of thermodynamics about entropy in order to point out that there is change and temporal progression, that we can tell “before” from “after” by the degree of entropy. This
Second, under certain conditions, and with the right experimental setup, it is possible to demonstrate that events in the present can determine the past. As a consequence, narratives with reverse causality, for example, do have a basis in physical reality, at least on the elemental particle level, and therefore should be called “unnatural” with this in mind.

Nevertheless: even though we should keep in mind the distinction between assumed natural laws and actual natural laws, ultimately, the assumptions readers bring to the text will determine their assessment of it as unnatural. Our commonsense axioms about time determine our experience of the world and of life to such a degree that it is nonsensical to insist that temporality really functions quite differently. If readers insist that time flows, is linear and monodirectional, then a narrative that breaks with these assumptions will be considered unnatural regardless of the fact that it might actually be true to physical law.

An important distinction that has already been made above but that has to be repeated and kept in mind for what follows is the one between story and discourse. A narrative may depict an unnatural temporal scenario on the story level, for example time travel as in *The Time Machine* (2003) or *The Time Traveler’s Wife* (2005), or a reversed temporal order as in *Time’s Arrow* (2003), but do so in quite an unobtrusive manner on the level of discourse. Inversely, a narrative may tell a story with no temporal complication at all, but do so in an unnatural manner, for example episodically reversed as in *Memento* (2000) or *Irreversible* (2002), or simply fragmented and nonlinear as

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5. This has been shown by John Wheeler in his so-called delayed-choice experiment.
6. Even certain forms of time travel appear to be possible, albeit only theoretically and very hypothetically (Deutsch; Deutsch and Lockwood). For one of the first—and still definitive—books on time travel, see Paul Nahin; for a survey essay on the real and seeming paradoxes of time travel, see Richard Hanley. Joe Haldeman’s novel *The Forever War* (2009) is one of the few narratives to make use of the only kind of time travel possible already today: time dilation.
in *21 Grams* (2003). Obviously, narratives may also do both. As narratologists reflexively—and correctly—point out, the doubly temporal order inherent in narrative has been amply exploited to create all kinds of temporal complications and complexities, with the result that discordance, that is, anachrony, is the rule, not the exception. Put more bluntly, a certain degree of temporal complication is “natural” in narrative.

Many of these complications on the level of story as well as on the level of discourse have become so commonplace and conventional that we no longer notice them; in other words, we have naturalized (Jonathan Culler) and narrativized (Monika Fludernik) them. As Jan Alber points out, we also have at our disposal a variety of cognitive reading strategies to come to terms with unnatural scenarios, for example by reading them as symbolic, metaphorical, or oneiric, or by blending and/or enriching preexisting frames, scripts, and encyclopedias.

Although this division between story and discourse has long proved a useful heuristic, it does have its shortcomings, which have been noted by a number of critics. In many narratives—particularly those about traumatic events—the division and thus the temporality of the text is blurred, for example, in Art Spiegelman’s *Maus* (2003). As David Herman insists, we should allow for “fuzzy” or indeterminate temporality, for narratives to be multivalent and polychronic rather than just “doubly” ordered (212). In a similar vein,
Peter Rabinowitz argues for the supplementation of a third term, *path*, to the story/discourse distinction in order to allow for the fact that “a character’s order of experience may conform to neither the story order nor the discourse order” (183). And Brian Richardson generally reminds us that not all texts have a consistent story that is retrievable or deducible from the text (“Beyond” 51).

The fact that many narrative complications have become naturalized and narrativized and that we have a number of reading strategies to deal with them necessitates another important distinction between unnatural and unconventional. Science fiction and fantasy narratives regularly contain unnatural temporal scenarios that by now are quite conventional to the genres. As mentioned above, Genette describes all kinds of temporal complications on the level of discourse that have become conventional. Thus we may have narratives that are, strictly speaking, unnatural, but conventional (zero focalization). On the other hand, many naturally occurring oral-storytelling situations will appear quite unconventional when transcribed and printed on the page as a result of the many overlaps, interruptions, and incomplete clauses typical of oral storytelling.

The distinction between unnatural and unconventional is also significantly a question of medium and genre. Time travel such as in Wells’s *The Time Machine* is entirely “naturalized” as science fiction, but might still be perceived as unnatural in narratives that otherwise indicate their adherence to the tradition of realism, as is the case in Audrey Niffenegger’s *The Time Traveler’s Wife*. Each genre has its own encyclopedia and scripts, which determine just what kind of parameters and rules readers may expect to govern that genre, which in turn affects the assessment of unnatural versus natural. Were the time traveler in *The Time Machine* to stumble across speaking animals or witches, readers would in all likelihood be much more confounded, whereas it is accepted that the animals in Orwell’s *Animal Farm* can speak but not fly.

As an interesting sideline perhaps worthy of a more elaborate discussion in another context, note that the conventional unnatural temporalities in fantasy and science fiction are actualized almost exclusively on the level of story, and only rarely on the level of discourse (in the occasional short story by Philip K. Dick or Stanislaw Lem). On the other hand, the temporal complications so and chronos) is philosophically interesting, but highly metaphorical. The open conception of time is defined as independent of matter, a “time of pure becoming,” a “continuum,” with time as “limitless capacity.” For analyzing literary texts, this metaphorization is not helpful (180). For a lucid discussion of postmodern variations of time and narrative, see Ursula Heise’s book *Chronoschisms: Time, Narrative, Postmodernism* (1997).

11. Rabinowitz makes this argument in the context of an interesting discussion of temporal arrangement in Wells’s *The Time Machine*. 
typical of many postmodern narratives often occur on the level of discourse, to the degree that sometimes there is no retrievable coherent story, as has been pointed out above. One could venture the—very tentative—speculation that unnatural temporalities are more easily conventionalized if they occur on the level of story, and that relatively clearly defined generic scripts such as in fantasy and science fiction also facilitate further conventionalization.

Similar conditionals pertain to the specific medium. Johannes Fehrle argues in an essay on the unnatural in comics that

there are many instances in which comics do not represent a natural (i.e. physically possible or realist) scenario, but instead follow a medial convention which is so established and expected that it does not cause estrangement. [. . .] [T]he breaking of one of these conventions, even though it might technically re-establish the physically natural, may in some cases seem “less right,” and more estranging to a reader. (231)

In one of the screen adaptations, Superman turns the earth against its usual rotation at such speed that he manages to turn back time. This is definitely an unnatural scenario; however, were he to openly use a device to fly, this would be “far more upsetting to a viewer—despite being more natural in the above sense—and the viewer would certainly search for an explanation for this transgression of the laws of the storyworld” (Fehrle 231).12 Therefore, evaluations of unnatural temporal scenarios also have to consider the conventions and rules of the particular medium and genre of the narrative in question. This also means that, according to Hansen, a poetics of the unnatural

brings into focus [. . .] not only fictional worlds governed by alternative “natural” laws, but worlds which foreground a disruption of their own (im- or explicit) laws and logic—that is scenarios or events which demand the reader to actively intervene through an act of “naturalization.” (165)

Last but not least, we have to consider the cultural context. Although the same physical laws govern our planet as a whole, their universal applicability is not universally accepted. It is conceivable that in other storytelling traditions, an alternative set of “physical laws” is believed to govern the actual world, either as a complement or even as an exclusive alternative to the physical laws widely accepted by the scholarly community. Though this should admittedly be rare, it is somewhat more likely that even if the actual laws

12. I have borrowed the entire example from the same essay by Johannes Fehrle.
remain untouched, the axioms that Ryan calls “intuitive and common sense” may be context- and culture-sensitive, for example regarding the “passing” and “speed” of time, or regarding the past being unchangeable. Also, and perhaps most immediately conceivable, story logic is context- and culture-sensitive. As Andrea Moll shows for oral-storytelling traditions in aboriginal New South Wales, Australia, scenarios and events considered logically impossible in predominantly Western narrative traditions would definitely be considered possible in other cultural contexts, for example the elimination of the distinction between past and present events, past and present persons, or a mythical person and the narrator. We can provisionally summarize these distinctions in figure 2.1.¹³

A poetics of unnatural temporality, hence, needs to consider (1) the particular axioms of time of a given cultural context of the narrative in question, (2) the specific traditions and rules of the medium and genre, and (3) the particular conjunction of story/discourse with unnatural/natural and unconventional/conventional. Obviously, this is a programmatic proposition. In many practical instances, it will be close to impossible to equally consider all aspects and conjunctions, especially if the analytic interest is diachronic and the selection of narratives exemplary. And while attention should be paid to the fact that notions of temporality are culture-sensitive, it will not be possible in all instances to grasp culturally inflected traditions and conceptions in all their complexity. In what follows, I will try to venture some generalizations about the consequences and functions of unnatural temporality with the help of specific examples.

Generally, although there exists a great variety of unnatural temporal scenarios, there seems to be a preponderance of a relatively limited number of certain scenarios on the levels of both story and discourse. On the level of story, unnatural temporality most often occurs in scenarios of time travel (Wells’s The Time Machine [2003], Zemeckis’s Back to the Future [1985]), time loops (Vonnegut’s Timequake [1998], Ramis’s Groundhog Day [1993]), time reversals (Amis’s Time’s Arrow [2003], Dick’s Counter-Clock World [2002]), and diverging/alternative timelines (Tykwer’s Lola Rennt [1998], Howitt’s Sliding Doors [1998]). On the level of discourse, the most frequent scenarios employ temporal reversals of some kind or other (most often sustained episodic reversals as in Nolan’s Memento [2000] or Noé’s Irréversible [2002]), non-linearity/fragmentation (Iñárritu’s 21 Grams [2003], Marcks’s 11:14 [2003]), future tense (seldom throughout an entire narrative, as in Moody’s “The Grid”

¹³. Caveat: the interdependencies of these factors are difficult to visualize. Even though it might visually suggest so, the scheme depicted in figure 2.1 does not propose a hierarchy. Generic scripts, for example, cut across media, as in superhero narratives.
FIGURE 2.1

<table>
<thead>
<tr>
<th>discourse</th>
<th>story</th>
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<tr>
<td>unnatural</td>
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<td>natural</td>
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Context

Medium

Genre
[2002], more often in chapters or paragraphs, as in Alvarez’s *How the Garcia Girls Lost Their Accent* [1992] or Obejas’s *We Came All the Way From Cuba So You Could Dress Like This?* [1994]), and denarration (Beckett’s *Molloy* [1955] or Ellis’s *Glamorama* [1999]). Interestingly, if we rearrange these examples in accordance with the distinctions introduced by Brian Richardson (note 1), the majority of unnatural temporalities on the level of both story and discourse tend to employ only three broad temporal complications, though in considerably numerous variations: contradictory (occasionally to the point of being nonreconstructable), antinomic (this might arguably include future tense), and differential (which I will take to include timeline divergences and parallelisms). It might be a rewarding speculation from a cognitive perspective whether these come closest to capturing our most common confounding experiences with, and perhaps contemplations about, time.

It is worth noting once more at this point that entire media and genres display a high propensity towards unnatural temporality in general. For example, due to the systematic arrangement and interplay of panels and gutters in order to create movement and time, the principally static medium of comics tends to allow for, and make use of, a significantly more flexible temporality, what David Herman calls multivalent or polychronic. In comics, thus, unnatural temporality actually occurs quite frequently on both the discourse and the story levels, for example, in Spiegelman’s *Maus*, or Ware’s *Jimmy Corrigan* (2000). Of course, the entire genre of superhero comics is based on physically (and often enough logically) impossible scenarios. To repeat Hansen, we should pay special attention to those narratives that break their own laws and logic.

More well-known examples such as Martin Amis’s *Time’s Arrow* or Christopher Nolan’s *Memento* have been discussed in detail. I would therefore like to shortly address some lesser known, but no less instructive examples on the levels of story and discourse. Terry Gilliam’s movie *Time Bandits* (1981) is a good case in point. The protagonists, a young boy and several dwarves, use a stolen map of all temporal fractures of the cosmos to travel through time in order to steal valuable artifacts. This in itself is entirely within the conventions of time-travel films and fantasy. However, not only do the temporal fractures/gateways occur in randomly different forms (holes, doors, whirls, mirrors) while the protagonists seem to have precious little control over them but, more importantly, the protagonists also travel to legendary time (Agamemnon, who is incorrectly shown as killing the Minotaur), to fairy-tale time (a giant with

14. Even though my examples are relatively recent, there are numerous narratives from earlier centuries that display an unnatural temporality.
a boat on his head), and to some place beyond time where evil resides, and is defeated. At the end of the movie the boy wakes up in his bed with the house on fire, from which he is rescued by a fireman who is played by the same actor who plays Agamemnon (Sean Connery). While one might shortly entertain the explanation that the whole narrative was a dream of the boy, in the very end a little remaining “piece of evil” kills his parents. The movie does not even pretend to temporal logic and consistency, not even within the conventions of time-travel narratives, which usually offer at least a flimsy though not always convincing explanation for paradoxes and inconsistencies.15

Another example before I offer an explanation: in Rick Moody’s (very) short story “The Grid,” a first-person narrative begins in the present tense at a certain point in time, from which the narrative develops along a temporal line in will-future tense; towards the end, the narrative “circles around” and returns to the beginning. The narrative reads like the prediction of a storyteller, with the difference that it does not address a you but appears to make rock-bottom declarations about what will occur in the future: “Later, for example, she will believe that her lips yielded too easily” (30) or “In the bar, in fact, she will be having a first kiss” (31). Character function and narrator function could be separated for as long as it is unclear that the “I” as narrator and the “I” as character are simultaneously present—which is not long at all. The future tense and the force of the predictions might suggest someone who knows what is going to happen. The present tense then is merely an illusion, because there is a narrator who looks back at events as they happened in the past but chooses to tell them in present tense. But that does not explain anything, nor is there anything in the text to suggest this.16

Now, if we want to take these narratives and unnatural temporal scenarios in general seriously, we should consider one of Tamar Yacobi’s “integration mechanisms,” the functional design: “such peculiarities serve as a pointer, if not as a key, to the work’s functional design” (117). “Whatever looks odd—about the characters, the ideas, the structure—can be motivated by the work’s purpose, local or overall, literary or otherwise” (111). Even if not mentioned explicitly in her essay, it is this assumption that underlies Ryan’s excellent summary of the function of temporal paradoxes: “temporal paradoxes do not completely block the construction of a fictional world, but rather, invite the reader to imagine a ‘Swiss cheese’ world in which contradictions occupy well-delimited holes of irrationality surrounded by solid areas about which the

15. Considering this, it is only a minor point that the two-dimensional map they use is supposed to show four-dimensional time holes.
16. For a lucid discussion of the consequences of present-tense narration for mimesis and unnaturalness, see James Phelan.
reader remains able to make logical inferences” (162). Such narratives then allow readers a “glance into the vertiginous philosophical abyss of the nature of time” (162) and “some aspect of human experience” (162); we may thus deal with unnatural temporal scenarios “logically by putting them in quarantine, so that they will not infect the entire fictional world”; “philosophically, by regarding them as thought experiments aimed at destabilizing common-sense conceptions of time”; “imaginatively, by putting ourselves in the skin of the characters whose life is being invaded by the irrational” (162).

For *Time Bandits*, this means that the irritating flouting of temporal logic and consistency is not a flaw in the script but is rather the point: an indication that time is not quite as stable as we tend to assume; that legendary, mythical, and historical past are not so far removed from each other; that even though the narrative does not make sense logically, it might adequately portray the occasionally puzzling and irrational *human experience* of time. Time-travel narratives in general tend to toy with the alluring but altogether unnatural idea that the past might be as malleable as the future seems to be and the future as foreseeable as the past seems to be with the wisdom of hindsight.

For “The Grid,” this means that the title may be taken literally: the narrative unfolds a grid of how the moment of commencement in the present tense develops into various directions for different characters, who are all linked by that one moment, or in other words: in all four dimensions. If this is taken as the functional design, then the story could be read as a clever comment on the temporal and spatial relatedness of all human life, on the network of our communal existence. As Uri Margolin notes about prospective narratives in general, they give witness to a fascination with the virtual, speculation, and counterfactuals (163), all of which are basic ingredients of human storytelling. No wonder, really, that a small but relevant number of migration narratives seem to include passages in the future tense to counter the uncertainties of migration with the apparent certainty of prediction.

Among the greatest strengths and appeals of narrative fiction is that it can construct/contain/project a virtually endless variation of worlds and scenarios, a unique testing ground for thought experiments, with tremendous aesthetic and experiential “fringe benefits.” Fictional narratives with unnatural temporalities offer one substantial way of compounding these pleasures by playing through a variation of temporal scenarios that are not strictly bound by the constraints of physical laws and logic and thus may capture aspects of human experience that, while strictly speaking unnatural, are actually quite "natural."17

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17. As David Richter’s essay on aspects of biblical narratology neatly shows, there are even
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texts that, if read strictly with an eye to the consistency of temporal order, would render quite disconcerting results (291–92).


Obejas, Achy. *We Came All the Way From Cuba So You Could Dress Like This?* New York: Cleis, 1994.


