



World Line and Narrative Realism

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Creating an immersive narrative is a difficult task. How does a writer craft a story in such a way that readers perceive the events as real? Literary fiction often presents us with events that seem realistic in nature, but genres such as fantasy and science fiction make it clear that it is not necessary for story events to be perfectly reflective of everyday reality. In all genres – unless the writer is constructing a meta narrative (Gergen 106-107) – the reader’s continued immersion is a mark of success. Most storytellers aim for narrative realism – the ability to create a consistent and believable world without removing the reader from the fictive experience. For example, a reader can be enjoying a book set in space with aliens as the main characters and say “that’s not realistic!” and be referring to – not the location – but the fact that the main character chose to leave their backpack behind when they left for an adventure. The narrative realism is interrupted.

How do writers achieve the goal of immersion? There are a variety of answers to this question, but it is possible that the best answers might “cut across and run between established discourses and subject positions” (Piller 2). Or in other words, creative writers and teachers of creative writing might find the subject more approachable with input from other disciplines. One answer comes from an unlikely source: perceptual science. The human perceptual system does not cease to function normally because it is presented with a surrogate reality, rather than a natural one. When readers encounter a fictional world, they are understanding it with all the same tools they use to understand their own. For this reason, ecological theories of perception can explain the creation of narrative reality, helping both teachers and students of writing understand why certain rules of cropped up around storytelling. As Tim Mayers points out, these rules are reinforced within creative writing pedagogy as “commonsense” but we believe their implementation can be improved by a deeper theoretical understanding of the purpose of such rules (14). Writing advice is legion and often unpredictable– why might a writing rule “work” in one context, but breaking it in

another context is completely permissible? Approaching storytelling from a perceptual standpoint reveals an underlying mechanism – the World Line – that unifies the disparate advice, grounding writing craft in a more predictable framework.

ECOLOGICAL PERCEPTION

One of the most fundamental tenets of the ecological perspective is that organisms are in constant need of information in order to survive. Everything required for survival (from foraging for food and avoiding predators, to more complex needs like earning money) requires navigating an environment and marshaling control over our actions within that environment. In the same way, a character in a story navigates a complex environment, albeit one of the author's making.

The progenitor of the field of ecological psychology, James Gibson, suggested we navigate our surroundings via *affordances*. According to Gibson, “Affordances of the environment are what it offers animals, what it provides or furnishes, either for good or ill” (127). They are what you can *do* in a given environment and with a given set of abilities. For example, I will not see a branch as fly-to-able, even though a bird might, because I do not have the ability to fly; similarly, the bird will not see a basketball as pick-up-able, even though I might, because the bird lacks both hands that grasp and the requisite strength. A character in a novel has their own set of affordances. A human-like character with wings and hands will both see the branch as fly-to-able and the ball as pick-up-able. This will be situated in the physical, cultural, and social contexts of the characters. Although these concepts can be easy to grasp in the real world, the goal of this paper is to demonstrate how these concepts might function in literature. As such, we will illustrate these concepts throughout the paper using a literary staple: Jane Austen's classic, *Pride and Prejudice*. To understand how affordances are influenced by social and cultural factors, we can look to Elizabeth Bennet's character. Elizabeth is a woman living in time period in which women did not inherit land but were expected to improve their situation via marriage. As such, she does not see her father's estate as inherit-able but does see the gentlemen at the parties as marry-able. Her effectivities change which opportunities are available.

In order to perceive affordances, organisms must engage in and observe the relevant events. There are many definitions for what an event is, but Robert Shaw and John Pittenger's definition maintains that an event is a change in circumstances (189). So for example, if I pick up a basketball, the ball has changed from lying on the ground to being in my hands. By this definition, events do not have a particular length; the change that defines them can be something longer (e.g. when the

bird was born, it did not know how to fly – the time it took to learn that skill could be considered an event, the change was from being a bird that could not fly to one that could) or something shorter (e.g. a heartbeat – the heart has changed from one that had not experienced that particular beat to one that had). Engaging in events reveals affordances to the organism; the bird cannot notice the branch as fly-to-able until it observes the scene. Just as affordances are specific to the organism, events can be as well. The events that I notice might be very different than the events the bird notices. A writer needs to understand what events their character would notice, and how that shapes their actions. In turn, what a character notices can help the writer shape what the reader notices, allowing for what Rabinowitz called the “rules of notice”: a hierarchy of important details highlighted by the actions of the characters. Elizabeth Bennet is aware of her sister Jane’s affection for Mr. Bingley and so notices all of the ways in which her sister expresses that affection; Mr. Darcy believes Jane is only leading on his friend and so notices only the (assumed to be) unrequited affections of Mr. Bingley. This difference in viewpoint leads to a narratively satisfying reveal later in the text.

Every event is part of – nested within – a larger event. Every event has within it smaller level events. *Basketball game* is part of a larger event – *my day* – which is, itself, part of a larger event – *my adult life*. *Basketball game* also has many, smaller, events within it – *taking out the equipment; passing the ball; making a shot* – and each of those events has events within them – *passing the ball* consists of *seeing someone to pass it to; moving into position; throwing the ball*; etc. The event *moving into position* makes no sense outside of the context of that particular game and those particular circumstances. In order for an event to have meaning, it must be nested coherently: the nesting, the context, is what gives an event its meaning. As a writer, paying attention to that nesting will help determine the right amount of narrative significance for story events. *Going to a party* has a different meaning early in *Pride and Prejudice* when Elizabeth merely hopes to have a nice outing, than later when she hopes to see the see the dashing Mr. Wickham or dreads seeing the brooding Mr. Darcy. A different context gives the same event a very different character.

An Ecological Account of Storytelling

From an ecological perspective, a story is a coherent, and coherently nested, series of events and affordances, meaningful to a particular entity, usually a character within the story. For an ongoing event to be meaningful for a specific person (or character) it must satisfy two criteria. First, it must be specified by their abilities (cf. Elenor J. Gibson, *Perceptual Learning*, “Exploratory Behavior”, *Learning and Perception*). To put it another way: while there is an infinite set of information available to us, we pay attention to only the very small subset of that information that pertains to our particular abilities. To continue the above examples, a bird may not see a basketball as pick-up-able, but they would see it as hit-by-able and so would avoid the ball should it be thrown in their direction. As a consequence, the event *basketball game* is not meaningful to the bird; however, the event

thrown ball is meaningful to the bird. These events are happening simultaneously, but the bird only attends to one. In *Pride and Prejudice*, multitudinous events are happening that are never mentioned because they do not come to Elizabeth's attention: perhaps whole dramas are playing out on the other side of the dance floor that we never see because she does not. That is not to say that the information for all affordances and events is not available to us all – rather that as Thomas Stoffregen said, “out of the infinite variety of things that are specified, we pick up information about only some” (171; see also Elenore J. Gibson *Perceptual Learning*).

The second criterion is that the event must be relevant to the person's intentions and needs. While we *could* be aware of all of the events specified by our abilities, we selectively attend to only those events that might thwart our intended goal or advance toward it. Which events are selected, therefore, says something about the mentality of the person attending to them. Put another way: “[The] study of event[s], at least in principle, can also be a study of mind” (Shaw, McIntyre and Mace 281). When viewed in this way, event perception is not merely a mechanical registering of information, but rather a reflection of the organism (Bingham), or for our purposes, the character. If a character is at a concert and instead of paying attention to the show, they are paying attention to the couple holding hands three rows down, that tells the reader something about the character's state of mind. Elizabeth's increasing attention to the kindness of Mr. Darcy's attention toward her family and his devotion to his friends is an indication of her increasing attraction to him and a softening of her initial prejudice. This is very much in keeping with Rabinowitz's assertion that the psychology of the character is discernible from their actions – we are merely being more explicit as to what is meant by “psychology” in this regard. Those events and affordances to which a person attends are what James Gibson called the “moving point of observation” (72) or what Peter Kugler, Michael Turvey, Claudia Carello, and Robert Shaw called the “World Line” (215).¹

Crucial, then, to story creation focused on a particular character or characters is the concept of the World Line. The World Line is a collection of events and affordances that are meaningful to a specific person (or character), which collectively constitute the complete narrative of that person's life. A brief narrative (i.e. a story) should not include *all* the events from character's World Line, but it must not include events from *outside* a character's World Line (Blau). That is, you do not need to show every event of a character's life – or every moment of their day – to create a realistic narrative. We never see Elizabeth Bennet using the restroom; we hardly even see her traveling from one location to another. All included events have a place within the story dictated by the character's experience, instead of another factor, such as the author's curiosity, or what they think the reader needs to know at a given point in the story. The World Line of a particular character is a *subset* of the Infinite Set of all events, and a story must be a subset of the character's World Line (Figure 1).

WRITING CRAFT FROM A WORLD LINE PERSPECTIVE

In crafting a story, the notion pictured in *Figure 1* can be informative both for the initial crafting of the story and for revisions. What are the rules of your story’s Infinite Set? Are they drawn from everyday reality? If not, where do they diverge? This is particularly important for worlds that are not our own – fantasy, science fiction – but also necessary in thinking about the constructed aspects of culture that impact more “realistic” narratives. For instance, if writing a story taking place in the U.S. military, the writer needs to *know* the social structure that will constrain the behavior of the characters. Sometimes writers confuse needing to know the information that defines the Infinite Set with needing to *include* all of said information within the text. Often it is a matter of letting that reality shape and permeate what happens in the character’s World Line, and more specifically, the story drawn from it. Determining the character’s World Line is much like creating a character biography, but with the added benefit that being explicit about effectivities and intentionality will help motivate behaviors.

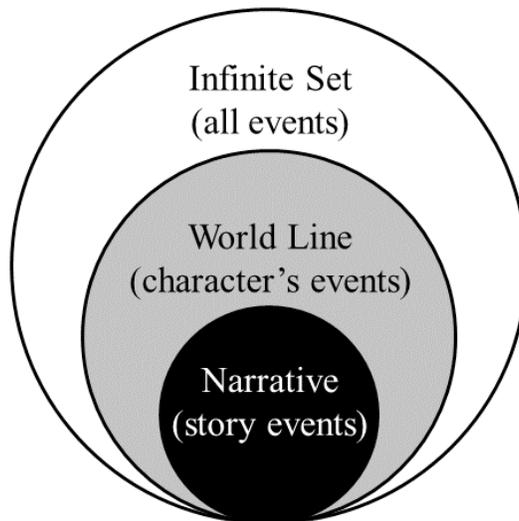


Figure 1: Nested event structure. A person or character’s World Line is entirely contained within the Infinite Set, the Narrative is entirely contained within the World Line. (From Blau, 2020, reprinted with permission).

Common Writing Advice

It is plainly evident that teachers and students of writing already know a great deal about those practices that will help a writer create a believable and coherent story. However, this knowledge was gained through trial-and-error, and writers (and teachers and editors) might find value in a theoretical framework that can provide coherence for what they have learned. The current system of ad-hoc rules does not provide novice writers a guiding intuition of what may or may not work should they wish to experiment outside the typical framework. Moreover, for every writing “rule” there is at least one source arguing against it, and at least one example of it being artfully and successfully violated. Josip Novakovich’s introduction to his book, *Fiction Writer’s Workshop*, explored this concept at length and ultimately concludes that while writers might find usefulness in some rules, they should “look for [their] own way” (3). Nevertheless, writing programs (e.g., the Gotham Writer’s Workshop) often provide students with a variety of these writing rules as guidance. Each program, manual, and teacher of writing craft may explain and name them differently, although there is a great deal of overlap. To provide an exhaustive list of writing rules is outside the scope of this paper, so we present instead four broad categories as exemplars. For each, we also present an explanation as to why the rule works using the concept of the World Line, and why a violation might be successful if done correctly.

Maintain Voice

Every story has a voice, consisting of word choice, grammar, tone, and narrative distance, among other factors. This voice is fundamental to the story; after all, “style not only reveals the spirit of the man but reveals his identity, as surely as would his fingerprints” (Strunk and White 68). Once a narrative voice has been established, the story must adhere to the established voice, or risk “losing” the reader. James Wood called the issue of maintaining a distinct voice a “problem inherent to all fictional narration” (26). If the voice changes without cause, violating its own unspoken rules of grammar, or including words or phrases that would not reasonably be used by the narrating entity, the reader mentally steps back. In experiments, participants will go so far as to *mentally re-write* passages to make the voice consistent (see Black, Turner, and Bower 193).

Explanation according to the World Line. To be coherent, a story must remain fully within a World Line. A World Line’s boundaries are created by the character’s capabilities, intentions, and history. If the character acts contrary to those, it feels disingenuous because in real life we are incapable of escaping our own World Line. Even if we suddenly change one of the properties that defines our World Line (e.g. we suddenly have a new intention or a new ability), that new property will merely define where the World Line goes, not change it to a new one altogether, somewhat like changing the direction of a car does not change what car you are driving.

Voice is dictated by the same things as World Line – capabilities, intentions, and history. In the case of a third person narrator, there can be slightly more linguistic flexibility, but the voice should still reflect the place, time period, and story focus, as well as the characters. With a first-person voice, diligence must be used to make sure that word choice, phrasing, grammar, and other linguistic elements reflects the character, as well as the situation they currently find themselves in. A person uses “y’all” because of where they grew up, but also because of choices they make about language use. To change voice is to change the established history of the character. With no motivation for that change (for example, a move to another state, or an interaction with a character who would ridicule the character for using the term) a change in voice is seen as disingenuous. The voice of *Pride and Prejudice* is formal and well-educated, reflecting the nature of Elizabeth’s upbringing.

Successful “violation” explained by World Line. In the epistolary novel *Flowers for Algernon* by Daniel Keyes, a radical shift in voice occurs. The narrator, Charlie, suffers from phenylketonuria (more commonly known as PKU) which has as its defining symptom a lowered intelligence. Charlie’s IQ is 68 at the beginning of the story and that is reflected in his spelling, grammar, and word choice. However, Charlie agrees to undergo an experiment to reverse the symptoms of the disease, and the treatment is successful for a time. As the book progresses, Charlie’s use of language becomes more and more sophisticated, eventually reaching a peak as Charlie achieves genius-level intelligence. Towards the end of the story, Charlie regresses and suffers the loss of his expanded mental capacity and the narrative voice shows a corresponding reversion in vocabulary and complexity of thought. According to the traditional rule, this sort of voice change should result in a loss of the reader’s belief in the character; however, it achieves precisely the opposite effect. With a certain amount of leeway for code-switching, we are accustomed to thinking of voice as consistent because it is for most adults, as their intelligence and history are, for the most part, fixed. Unless the character is undergoing the kind of radical change Charlie does, violations of voice would be inconsistent with the character’s World Line. In Charlie’s case, however, his World Line is shifting, so having his voice shift in response is *specifying* his World Line, rather than contradicting it.

Maintain Character Consistency

Once the range of a character’s thoughts and actions has been established, seeming inconsistencies can cause a reader to question the character’s believability. “Almost any reader can identify with almost any character; what no reader can identify with is confusion” (Burroway and Stucky-French 103). The character must be felt to act as this particular being would in the given set of circumstances (no matter how far-fetched those may be). Mark Twain, in his tongue-in-cheek criticism of a contemporary author, wrote a series of rules for writing believable fiction. One of the rules “require[s] that when the author describes the character of a personage in his tale, the conduct and conversation of that personage shall justify said description” (34). Or put another way, the

character's actions must match their personhood, or else the character appears to be acting, not of their own accord, but at the mercy of the plot. Once an author has established and given life to the characters, the characters must follow the dictates of their personalities; otherwise, a sense of manipulation can set in and the reader ceases to trust the agency of the characters. Even though the audience might be able to tell that Mr. Wickham is a rake, Elizabeth is taken in by him; even though it would have helped save the reputation of her sister Lydia, Elizabeth does not warn her about his nature. We cannot expect Elizabeth to act outside her established personhood and she is established as being susceptible to cleverness, and too proud to admit her mistakes (particularly when doing so would harm someone she adores, namely Miss Darcy).

Explanation according to the World Line. An individual's World Line is not the entire set of all events to which they could attend, but rather all the events to which they *do* attend. A person will selectively attend to those events that are highest in what Titchener called Attensity (156). *Attensity* is the property of an environment-organism interaction that makes one particular part of the scene attention-grabbing for that organism. For example, as I sit typing on my computer, I can see my drinkable coffee, my walk-through-able door, my readable books on my climbable bookshelf, etc. etc. A broad array of possibility lies before me. However, given my intention (writing) I do not notice these things, I notice my computer as write-with-able. It has grabbed my attention; it is high in Attensity.

If a lion were to enter my office, it would instantly become the part of the environment with the highest Attensity. At base, all organisms have the desire to survive and any threat to that will demand our attention. This shift in attention is what has kept all species going – someone who does not notice the lion because they are too focused on the computer will get eaten. Only those who notice the lion will live to pass on their genes. However, when there are no threats to survival, other intentions will surface as the next most important, and the affordances relevant to that intention will have the highest Attensity. If you have established that a character needs water, for example, it is unlikely they would fail to notice a stream nearby and would, instead, focus on the sound of the birds. For a narrative to have the same reality as our own experience, the character's awareness of events must dynamically shift as the character's context and intentions change.

Our actions are entirely dictated by the affordances we notice. We cannot so much as walk without noticing the ground is walk-on-able, eat without noticing the food is edible, or type without noticing that the keyboard is type-on-able. It is impossible to act contrary to our most vital intentions because while the affordances relevant to lesser or even absent intentions are *available* they are not *noticed* (and are thus impossible to act upon). It is possible to override our most basic intention (*survive*) by making a different intention stronger (e.g. *save other lives*), which is what allows a fireman to run into a burning building. However, it is not possible to override one important intention without substituting a second that we find more vital. Inconsistencies in character result

from a character acting contrary to a stated or obvious intention without another, overriding, intention being presented. Elizabeth Bennet refuses to marry Mr. Collins, even though it is in keeping with one of her stated intentions (i.e., *get married to secure a stable future*) because it is contrary to a more basic intention (i.e., *be happy*). It is arguable that an even more basic intention (in this case, *make her father happy*) could have changed her mind, but given her father's response to the proposal, she was able to escape that particular fate.

Successful "violation" explained by World Line. In *Pride and Prejudice*, we are introduced to the character of Mr. Darcy in the context of a ball. He is haughty and dismissive, commits the ultimate crime of refusing to dance, and insults the women as he does so. His character is described as the "proudest, most disagreeable man in the world" (8). We see his actions through the eyes of Elizabeth Bennet, and feel her mortification as he describes her as "not handsome enough to tempt me" (9). So it comes as a rather abrupt character change when he, not forty pages later, attempts engaging her in flirtations. So much so that Miss Bennet interprets his actions as censorship, rather than admiration: "She could only imagine...that she drew his notice because there was a something about her more wrong and reprehensible, according to his ideas of right, than in any other person present" (47). While it may seem as though his *character* has undergone an abrupt alteration because his *actions* have, his *intentions* (and by extension his World Line) have been changing gradually as the story progresses. His change in actions only seems abrupt to Elizabeth because she is not privy to his internal world. The book is, after all, Elizabeth's World Line. What is interesting about this particular example is that Jane Austen deftly nests Darcy's World Line within Elizabeth's *perception* of his World Line – so the audience is able to simultaneously view Darcy as proud and judgmental as well as shy and tender. Austen is careful only to reveal as much of Mr. Darcy's internal life as Elizabeth might have learned or intuited later in the story. This example highlights the fact that more complex narrative structures are not only allowable in the World Line framework, but work best when in service of it.

Maintain Character Desire

A lack of character desire is one of the most common and difficult circumstances in the crafting of fiction. As Robert Olen Butler said in an interview, "Fiction is the art form of human yearning." When it is unclear what a main character wants, or when a character does not appear to want anything, readers often fail to connect to the protagonist in question. Kurt Vonnegut wrote a series of rules for how to write believable fiction as a preface to his collection of short stories *Bagombo Snuff Box*, one of which proclaimed: "Every character should want something, even if it is only a glass of water." Lack of character desire leaves the audience unconcerned about the outcome of the events of the story.

A character must also have *consistent* desire. Their intentions, if stated at the outset, should be visible and relevant in their interactions. If a character is said to have a particular desire, but it is put aside or forgotten for a prolonged period of time, the reader questions the character and author, rather than following the story as it unfolds.

Explanation according to the World Line. This rule is simultaneously completely intuitive and utterly counter-intuitive. If the goal of a story is to present a group of characters behaving realistically in their given circumstances, then showing a character who sometimes does not want anything is as realistic as it gets. We have all spent lazy afternoons staring at the ceiling. So why must our characters be more motivated than we are?

There are absolutely times when we (and probably our characters) do not appear to want things, but even in our least active moments, we order our perception of the universe around our needs and desires. For instance, when we are lying and staring at the ceiling, perhaps we are giving our brains a much-needed break, or daydreaming about future possibilities, or thinking about the people who live upstairs. We are in a dynamic, ever-shifting state that is never as inactive or unmotivated as it might first appear.

Moreover, when telling a story, authors must focus on the moments that illustrate the character's most important wants and needs, leaving out ones that are too small to warrant inclusion, or are unimportant to the narrative. Put another way – in addition to being entirely nested within the World Line, the Narrative Set of events cannot contain events meaningless to the narrative. The vast majority of the time, narratives focus on a main character and so to show a seemingly passive time in their lives (i.e. a time without meaningful events) would be to violate that proper nesting. Elizabeth's desires are always apparent, although the relative importance of them shifts dynamically through the story. Her dedication to her family, her desire to be happy, her need for a stable future, all dictate her actions to greater and lesser degrees throughout the entire novel. Even so, we only enter into her story just before the main events begin – though presumably her desire existed prior to the novel's start. We are shown only that period of time that is meaningful to the narrative. Similarly, the character of Mr. Darcy is a relatively one-dimensional "villain" early on, and only becomes interesting once we have a deeper understanding of his desires.

Successful "violation" explained by World Line. In the final Hunger Games book, *Mockingjay* by Suzanne Collins, the main character Katniss appears to be largely passive. But if we track her goals through the series, Katniss is merely remaining consistent to her own World Line. At the outset of *The Hunger Games*, the first book in the trilogy, Katniss is engaged in illegal hunting, not out of any sense of political imperative or rebellion; she is feeding her family in the only way she is able, given her set of circumstances and abilities. Katniss volunteers to participate in the violent

Hunger Games, not as an act born of politically motivated resistance, but a desperate attempt to save her younger sister from having to participate, as her sister would undoubtedly die. It is shown, over and over, that Katniss does not believe in the glory of fighting for a cause. Any part she plays in the revolution is incidental to her main goals of protecting those she cares about and surviving in her violent reality. At the outset of the third book, Katniss might look passive within the larger story line, but she is *not* passive within her own story line. She continues to care for her mother and sister and to protect her friends, reaching out to one who has been tortured, hoping to save his life even if it puts her in danger – again showing that her main goal is saving those she cares about, even above saving herself. At the same time, Katniss resists the pressure to assume a “greater cause”, which throws the hypocrisy of the revolutionary leaders into stark relief. The larger story of government overthrow unfolds around her, as Katniss struggles to achieve her own goals, which are often at odds with the more politically charged revolution. Her passivity within the larger context is a side effect of her own World Line remaining consistent.

Maintain Proper Time

Two types of time can be said to exist in narratives that contain any exposition. The first is the time of the narrative itself (i.e. how long does each event take and in what order?) the second is the *perceived* time (i.e. does the exposition unfold believably given the pace of the story?). Both need to be rigorously maintained.

It is important for the writer to obey the timeline of his or her story, making sure that events advance in a manner that does not contradict the logical passage of time. Some theorists (e.g. Greenough, Hersey, and Bruce 358-359) hold that, for this reason, stories ought exclusively to be told in a linear fashion; however, there are many examples of successful stories with nonlinear narratives. Regardless of whether the narrative is nonlinear or moves only forward in time, the reader must be able to understand the chronological order of events. To achieve this, clarity of movement through time, and any rules that are used to govern that movement, must be coherent and transparent to the reader.

In addition to mistakes in the actual timeline of the events in the narrative, mistakes of perceived time can be just as detrimental to the reader’s suspension of disbelief. For example, what Tim Wynne-Jones calls the “pause button violation” (14) occurs when the narrative’s movement through time is interrupted by a flashback, reminiscence, or thought which does not believably unfold in the given moment. When the reader returns to the flow of the narrative, they are left with the sense that the character could not have reasonably addressed this reminiscence or thought in the given set of circumstances and amount of time allotted. This creates a sense that the author unnaturally put the narrative on pause to deliver information to the reader. Brooks stressed the need to avoid this “so that the reader, without stopping for analysis, may feel the significance of the narrative as

it progresses” (246). Or in other words, the narrative pace must never be violated in order to impart information – it must always fit within the confines of the story as it unfolds.

Explanation according to the World Line. When writing, it is jarring and problematic to divorce an event from its particular nesting (its World Line) because that would separate the meaning from the event - an impossibility in real life. You cannot understand the event *thrown ball* unless you also understand that just prior was the event *asking for the ball* and that both of those events are nested in the event *basketball game*. If the event immediately preceding *thrown ball* was *insult delivered* and the two events were nested in the event *having an argument*, the *thrown ball* event takes on an entirely different character. Proper nesting is what *gives* an event its meaning. As a consequence, when a story is divorced from its World Line – even momentarily – it loses its coherence. To maintain proper time in the narrative itself, the events must remain properly nested. In a perfectly linear story, it is far easier to maintain that nesting, which explains both why so many stories are told in a linear fashion and why authors are urged to tell stories this way. It is, however, completely possible to maintain proper nesting in a non-linear narrative; all that is required is that the nesting be made *explicit* (e.g. by giving them what Sheridan Baker called “temporal signposts: *at the same time, now, when, while, then, before, after, next, all the time*” 56)² rather than the *implicit* nesting in a linear story (i.e. the events unfold chronologically, so the temporal nesting is obvious).

Pause button violations are also a result of incoherent nesting. If a narrative is put on “pause” for a reminiscence, exposition, or a flashback it must be clear to the reader how much time it takes to impart that information. Recalling events does not take as much time as living events - but it does take time. If, for instance, a character spends fifteen pages reminiscing about making jam with her father, we cannot learn afterwards that only ten seconds has passed in the present narrative since the beginning of the flashback. Whereas if the same flashback – *making jam with father* – is presented in a few brief sentences, the reader might easily believe that only ten seconds have elapsed. As Wynne-Jones suggests, an even better option is to present the information at a different time (15) – making the reminiscence a *subsequent* event rather than a *nested* event, in which case the rumination can take as long as it would like.

The issue of attensity is also apparent in pause button violations. In order for a real person to spend time reflecting on a memory, the memory itself must have a higher attensity than the present circumstances. The character will most likely not spend fifteen pages or even a few paragraphs thinking about making jam with their father when they are locked in life or death combat. The attensity of the current-time stakes (life and death) is far too high to be overridden by something so low-stakes. To make a flashback or an aside work, it must take an appropriate amount of time and must have higher attensity than the character’s present moment. Elizabeth spends a great deal of time reading Mr. Darcy’s letter (which is essentially an epistolary flashback) but that event is allowed to take the time it needs – “two hours” of “wandering along the lane” (197).

Successful “violation” explained by World Line. In the novel *Another Brooklyn* by Jacqueline Woodson, the passage of time does not, at first, appear to follow any rules. In the first several chapters, the narrator August careens back and forth in time, from the present day, in which her father is dying, to various times in the past. Eventually, the flashbacks settle into one main time period, but even within that, flashbacks and tales of other times occur without any overarching pattern. However, August draws attention to the way that time seems to misbehave throughout the narrative. She tells us, “This is memory” (16) and repeats the phrase throughout the novel during moments of flashback. In doing so, August is specifying not just the retrospective perch of most of the story, but the nesting of the events within the story. In addition, the entire narrative could be called a pause button violation, because the death of her father in the present is presumably of very high attensity and yet is indefinitely put on hold in favor of the narrator’s deep dive into her past. However, the reason the attensity of the memories is higher than the present-day events is also made clear: her father’s death has unmoored her attempts to escape processing her mother’s suicide in her younger years. The back-and-forth that might at first seem erratic is her mind’s attempt to piece together all of the disparate times of her life into a meaningful narrative – this is August’s true World Line, finally incorporating the past that she desperately tried to ignore and escape.

Defining the Narrative Set

In addition to addressing the perceptual framework that underlies the “rules” of writing, the World Line framework can also help with one of the more difficult aspects of narrative craft: deciding what to include and what to exclude.

When reading a book, a reader has two different World Lines competing for their attention – their own and that of the narrative. For the reader to remain engrossed in a story, the attensity of the narrative must be higher than the attensity of the reader’s World Line. Books face a difficulty that other storytelling mediums (e.g. movies or plays) do not: they have no control over the attensity of the reader’s life. Theaters (whether cinematic or live action) dim the lights of the room the audience is sitting in, outline strict rules about talking and cell phone use, etc., thereby lowering the attensity of the audience’s World Line as much as possible and increasing the chances that the narrative’s attensity will be higher. Books do not have that luxury: they are read on planes and beaches, on a noisy bus and in a quiet chair. Without any control over the reader’s life, the book must rely on keeping the attensity of the book so *high* that all but the most disruptive life would be overcome by it. One prerequisite of keeping the attensity of the book high is to keep the Narrative Set properly nested and consistent with its constraints.

The World Line concept requires that the narrative fall fully within a set of constraints. Those constraints are set by the author and include both the constraints of the world the book takes place in (the book’s Infinite Set) and the constraints of the character whose World Line we are following (see

Figure 1). If the world you are in has been set up as one where there is magic, but only after undergoing a ritual, then you cannot have a character perform magic without the ritual because it would be inconsistent with the Infinite Set. If your character has been defined by their desire to overthrow the government, you cannot have that character suddenly extol the virtues of a massive bureaucratic system because it is inconsistent with the World Line. Essentially, in order to avoid the reader being brought out of the story, one prerequisite is to keep the Narrative Set nested fully in the World Line and the World Line nested fully in the Infinite Set.

The reader has an Unspoken Contract with the writer – the writer agrees to present *all relevant* information needed to specify the story and the audience agrees to believe that the writer is doing so (see Proffitt; Willats; and James J. Gibson). Including an event that has no particular significance to the narrative puts the reader in the unenviable position of attempting to make the event fit, and being frustrated when it does not. In an oft-repeated trope (found in Chekhov’s letter to playwright Aleksandr Semenovich Lazarev), “One must not put a loaded rifle on stage if it isn’t going to go off. It is wrong to make promises you don’t mean to keep” (163). An event without later relevance is like an open parenthesis: the reader holds it in mind, waiting for the resolution. A high-attensity object like a gun is particularly difficult in this regard because it calls attention to the oversight, but any event of this type will have the same effect on the reader. If an event is not undeniably necessary to understand the narrative, then it should not be included. As Mark Twain declared, “episodes of a tale shall be necessary parts of the tale, and shall help to develop it” (34). As previously mentioned, events within the narrative must be coherently nested; part of that requires that every event have a beginning and an end.

The concern about all included events having resolutions raises the issue of open-ended stories, which can absolutely be successful when well-crafted. Damian Stephen, Nigel Stepp, James Dixon and Michael Turvey suggest that an organism nested within an event will be able to predict the outcome of that event (5271). What this means is that if an event is properly specified (as it always is in real life and *should be* in story writing) then the ending of that event is, to a certain extent, predictable. For example, given the event *a person lives*, the end of that event – *the person dies* – is entirely predictable, so to say that they died would be redundant. To make an open ending work, the author must specify enough constraints in the characters, plot, circumstances, etc. that a reader could reasonably predict an ending – making actually supplying the ending redundant. Now, what one reader predicts might be very different from what a different reader predicts, and might be very different from what the author intended (owing to the differences in their personal World Lines); however, the point is to leave the reader feeling that an ending is *implied*, even if not explicitly *given*.

It is worth mentioning that adhering to the World Line constraints outlined in this paper will not guarantee that every reader will enjoy every book written this way. Just as the character’s events

are dictated by their intentions and history, those events which interest a reader are dictated by their own World Line – their own set of intentions and history. This is not unrelated to Rabinowitz’s “rules of notice” – for him, all (ideal) readers would be drawn to the same story elements by the writer; however, different aspects of the story will have different attentivities for different readers, and like all attentivities, these will be dynamic, and ever-shifting, so it is little wonder that “ideal readers” are so elusive! As Stephen King said, “Once you know what the story is and get it right... it belongs to anyone who wants to read it” (57). By bringing their own World Line into contact with the story, the reader imposes their own character on the narrative. Not every reader will enjoy the intersection of their own World Line with that of the character’s World Line – not all such intersections will be coherent, let alone engaging. Writers can attempt to anticipate intersections that will draw readers to a story (e.g. readers who are romantically inclined might enjoy a book with a strong central romance), though ultimately, the intersections of a reader’s life and the Narrative Set are not so easily reduced.

CONCLUSIONS

This paper opened with the example of reader balking at a fictional alien leaving behind her essential backpack. Our goal was to explain this moment and we hope we have done so. The situation is unrealistic because it is a violation of the character’s World Line. She is known for her practicality, her intentions have been made clear, and under the outlined constraints, without another intention being presented, it violates her World Line.

Understanding the World Line theory can help writers craft more believable narratives, but we hope the applications of this theory extend beyond that. First, by providing a unifying theory for the rules of creative writing we hope that current tenets can be presented more coherently; after all, research by Walter Kintsch has shown that providing explanatory frameworks for information makes that information easier to remember. Additionally, we hope this framework will help scholars of creative writing in predicting new applications of the World Line theory. We have focused on what “works” and what does not when it comes to narrative realism, but we believe this framework would be useful to other areas of scholarship in the future.

While our arguments here have centered on narrations as presented in fiction novels, we believe this concept can be applied to stories more generally; moreover, as we have alluded to throughout this manuscript, we believe this theory works irrespective of any genre distinctions (Longhurst 597). Similarly, while the chosen texts all feature reliable narrators, we do not believe this theory is constrained to only those situations. Because of our perceptual systems, we will always be more

inclined to believe narratives that are composed from a focused set of events taken entirely from the World Line. When formed from events in the character's World Line, a story is more than just a series of plot points; it is a coherent and meaningful – and thus believable – narrative.

Notes

1. The concept of World Line has its roots in physics, as an explanation and rationalizer of the expansion of the universe following the big bang (c.f. Edward Milne - at first called 'world trajectory' and eventually changed to 'World Line' to distinguish it from the term 'trajectory'). The World Line in that context is understood as the entire travels of a particular piece of matter. While this cannot be applied without modification to humans, the basic notion of trajectory as defined by the space a particular person or thing inhabits, is a useful one.

2. It is worth noting that this is not the only way to specify a nonlinear story. Many successful stories (e.g., *Sometimes a Great Notion* by Ken Kesey, *Finnegan's Wake* by James Joyce) find other clever ways of navigating the nonlinear structure.

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WORKS CITED

- Austen, Jane. *Pride and Prejudice*. 1813, New York: Vintage Classics, 2007. Print.
- Baker, Sheridan. *The Practical Stylist*. 8th ed., New York: Pearson/Longman, 2006. Print.
- Bingham, Geoffrey P. "Events (Like Objects) are Things, Can Have Affordance Properties, and Can Be Perceived." *Ecological Psychology*, vol. 12, no. 1, 2000: 29-36. Print.
- Black, John B., Terrence J. Turner, and Gordon H. Bower. "Point of view in narrative comprehension, memory, and production." *Journal of verbal learning and verbal behavior* 18.2 (1979): 187-198.
- Blau, Julia J. C. "Revisiting Ecological Film Theory." In *Perception as Information Detection: Reflections on Gibson's Ecological Approach to Visual Perception*, edited by Jeffrey Wagman and Julia J. C. Blau, Taylor and Francis, 2020. Print.
- Burroway, Janet and Elizabeth Stucky-French. *Writing Fiction: A Guide to Narrative Craft*. Longman, 2007. Print.
- Butler, Robert Olen. Interview with Lorraine Berry. "The Danger of Wanting to Be a Writer." *Talking Writing*. 6 Feb. 2012, <http://talkingwriting.com/robert-olen-butler-the-danger-of-wanting-to-be-a-writer>. Accessed 30 Sept. 2016.
- Chekhov, Anton. "Personal letter to playwright Aleksandr Semenovich Lazarev." 1889. *Russian Literature in the Nineteenth Century: Essays*, compiled by Lea Goldberg, Magnes Press, Hebrew University, 1976. Print.
- Collins, Suzanne. *The Hunger Games*. Scholastic, 2008-2010. 3 vols. Print.
- Gergen, Kenneth. "Narrative, Moral Identity, and Historical Consciousness: A Social Constructionist Account." *Narration, Identity, and Historical Consciousness*. Vol. 3. Ed. Jürgen Straub. Berghahn Books, 2005. Print.
- Gibson, Elenor J. *Principles of Perceptual Learning and Development*. Appleton, 1969. Print.
- Gibson, Elenor J. "Exploratory Behavior in the Development of Perceiving, Acting, and the Acquiring of Knowledge." *Annual Review of Psychology*, vol. 39, 1988: 1-41. Print.
- Gibson, Elenor J. *An Odyssey in Learning and Perception*. MIT Press, 1991. Print.
- Gibson, James. J. *The Ecological Approach to Visual Perception*. 1979. Erlbaum, 1986. Print.
- Gotham Writer's Workshop. <https://www.writingclasses.com/>
- Greenough, Chester Noyes, Frank Wilson Cheney Hersey, and Harold Lawton Bruce. *Writing Well*. American Book – Stratford Press, Inc., 1932. Print.
- Joyce, James. *Finnegans wake*. Faber and Faber, 1939.
- Kesey, Ken. *Sometimes a great notion*. Penguin, 2006.
- Keyes, Daniel. *Flowers for Algernon*. Harcourt, 1966. Print.
- King, Stephen. *On Writing*. Scribner, 2000. Print.
- Kintsch, Walter. "Text comprehension, memory, and learning." *American Psychologist* 49.4 (1994): 294.
- Kugler, Peter N., et al. "The Physics of Controlled Collisions: A Reverie About Locomotion." *Persistence and change: Proceedings of the first international conference on event perception*. Vol. 2. Psychology Press, 1985. Print.
- Longhurst, Derek. "A Response to Peter Rabinowitz." *Critical Inquiry* 12.3 (1986): 597-600.
- Novakovich, Josip. *Fiction writer's workshop*. F+ W Media, Inc., 2008.

- Mayers, Tim. *(Re) writing craft: composition, Creative Writing, and the future of English studies*. University of Pittsburgh Pre, 2007.
- Milne, Edward A. "Kinematics, Dynamics, and the Scale of Time." *Proceedings of the Royal Society of London*. Series A, Mathematical and Physical Sciences, vol. 158, no. 894, 1937: 324-348.
- Piller, Erick. "What's Creative about Creative Writing? Critical Pedagogy and Transversal Creativity." *Journal of Creative Writing Studies* 2.1 (2017): 4.
- Proffitt, Dennis. R. *Demonstrations to Investigate the Meaning of Everyday Experience*. Dissertation, The State University of Pennsylvania, 1976. Print.
- Rabinowitz, Peter J. *Before reading: Narrative conventions and the politics of interpretation*. The Ohio State University Press, 1998.
- Shaw, Robert, et al. "The Role of Symmetry in Event Perception." *Perception: essays in honor of James J. Gibson*, edited by Robert Brodie Macleod and Herbert L. Pick, Jr., Cornell University Press, 1974: 276-310. Print.
- Shaw, Robert E. and John B. Pittenger. "Perceiving Change." *Modes of Perceiving and Processing Information*, edited by Herbert L. Pick and Elliot Saltzman, Erlbaum, 1978: 187-204. Print.
- Stephen, Damian G., et al. "Strong anticipation: Sensitivity to long-range correlations in synchronization behavior." *Physica A: Statistical Mechanics and its Applications* 387.21 (2008): 5271-5278. Print.
- Stoffregen, Thomas A. "Filming the World: An Essay Review of Anderson's *The Reality of Illusion*." *Ecological Psychology*, vol. 9, no. 2, 1997: 161-177. Print.
- Strunk Jr., William and E.B. White. *The Elements of Style*. 3rd ed., 1959|1979 Print.
- Titchener, Edward B. "The Term 'Attensity'." *The American Journal of Psychology*, vol. 35, no. 1, 1924: 156. Print.
- Twain, Mark. Fenimore Cooper's Literary Offenses. 33-45. In *Speaking of Rhetoric* edited by Jack E. Conner and Marchlline Krafchick. 1966. Print.
- Vonnegut, Kurt. *Bagombo Snuff Box: Uncollected Short Fiction*. Random House, 2000. Print.
- Willats, John. "The Draughtsman's Contract: How an Artist Creates an Image." *Images and Understanding*, edited by Horace Barlow, et al., Cambridge University Press, 1995: 235-254. Print.
- Wood, James. *How Fiction Works*. Farrar, Straus, & Giroux, 2008. Print.
- Woodson, Jacqueline. *Another Brooklyn*. HarperCollins, 2016. Print.
- Wynne-Jones, Tim. Unpublished. "Dialogue: The Mechanics of." The third lecture in the series Making Stories, 12 Nov. 2013, Queen's University in Kingston, Ontario. Writer in residence series.