Topoi
https://doi.org/10.1007/s11245-023-09942-1

Towards a Typology of Narrative Frustration

Daniel Altshuler[1] · **Christina S. Kim**[2]

Accepted: 26 June 2023

Abstract
Through imaginative engagement readers of fiction become, to an extraordinary extent, the narrator's 'children': they often submit themselves to the narrator's authority without reserve. But precisely because of that, readers are deeply at a loss when their trust is betrayed. This underscores a core function of fiction, namely to evoke emotional response in the reader. In this paper, we hypothesize how a reader's imaginative engagement can be subjected to narrative frustration due to processing or moral complexity. The types of narrative frustration we consider differ in terms of their sources, and their emotional and behavioral impacts on the reader. Here, we break down these frustrations into their component parts, in an effort to better characterize the different classes of frustrations. We propose that frustrations arise from different combinations of local uncertainty, moral clash and global uncertainty. These sources of frustration in turn explain the reader's emotional response and their consequent reading behavior as they imaginatively engage with fiction.

Keywords Imagination · Fiction · Narrative · Behavioral frustration · Emotional frustration · Perspective · Discourse coherence · Empathy · Moral conflict

1 Introduction

Through imaginative engagement readers of fiction become, to an extraordinary extent, the narrator's 'children': they often submit themselves to the narrator's authority without reserve.[1] But precisely because of that, readers are deeply at a loss when their trust is betrayed. This underscores a distinct capacity that fiction has, making it different from other kinds of texts, namely that it can engage readers emotionally (see, e.g., Brewer and Ohtsuka 1988; Tan 1994). By measuring readers' responses, we can make sense of their imaginative engagement in terms of how their mental representations are updated and how the update is constrained by their mental representations (Zwaan et al. 1993, 1995; Dijkstraa et al. 1995; Kneepkensa and Zwaan 1995).

In this paper, we hypothesize how a reader's imaginative engagement can be subjected to *narrative frustration* due to processing or moral complexity. The types of narrative frustration we consider differ in terms of their sources, and their emotional and behavioral impacts on the reader. Here, we break down these frustrations into their component parts, in an effort to better characterize the different classes of frustrations. We propose that frustrations arise from different combinations of local uncertainty, moral clash and global uncertainty. These sources of frustration in turn explain the reader's emotional response and their consequent reading behavior as they imaginatively engage with fiction.

A key assumption we make is that the basic mechanisms used to understand and interpret any text—fictional or not—contribute to the imaginative process, and to the overall emotional experience of a reader. Thus, behavioral frustrations arising from processing complexity have behavioral effects, but also give rise to an emotional response. By the same token, imagination of the kind associated with fictional world-building uses the same basic toolkit that we use to understand the content of a non-fictional text. Imagination is often characterized in opposition to perception: associated with the internal,

✉ Daniel Altshuler
daniel.altshuler@ling-phil.ox.ac.uk

Christina S. Kim
c.s.kim@kent.ac.uk

[1] Faculty of Linguistics, Philology & Phonetics, University of Oxford, Clarendon Institute, Walton Street, Oxford OX1 2HG, UK

[2] Department of Modern Languages and Linguistics, University of Kent, Canterbury, Kent CT2 7NZ, UK

[1] This analogy comes from Hans Kamp (p.c.).

Published online: 16 October 2023

and driven by an imaginer's volition, as opposed to being automatic and about the external world (O'Connor and Aardema 2005). However, this dichotomy is not as clean as it may appear superficially. Perception is notoriously dependent on context, perspective, and individual experiences and memories (Gregory 1974; Witt and Proffitt 2007), just as interpreting a non-fictional text is. Neither non-fiction nor perception, then, are direct representations of reality, but rather mental approximations of the world, with gaps and discontinuities filled in with bits of our individual accumulations of experiences (Schacter et al. 2007; Schacter and Addis 2007; Jandt 2020). What makes fiction different is that it can frustrate the reader by design: non-fictional text can incur processing difficulty incidentally, but fiction can deliberately frustrate the reader to create a particular emotional response.

The paper proceeds as follows. In Sects. 2 and 3, we propose two basic kinds of narrative frustration: *behavioral frustration* and *direct emotional frustration* respectively. These frustrations are local, or 'localizable', in the sense that they can be pinned to specific textual elements, such as Free Indirect Discourse, disambiguating content that triggers reanalysis, or parts of a text that reveal a character's unexpected moral framework. While both are local, we suggest that they differ in the nature of the difficulty experienced by the reader. We hypothesize that behavioral frustrations arise from processing complexity due to uncertainty about interpretation, whereas direct emotional frustrations are caused by moral conflict, and therefore incur an emotional rather than a behavioral cost. To motivate this hypothesis, we provide examples in the former frustrations of expectation violation, reanalysis or inability to fill interpretive gaps that resemble instances of processing difficulty seen in sentence-level processing. The latter, by contrast, mainly involve world knowledge, particularly a reader's beliefs that conflict with what's endorsed by the text.

Subsequently, we propose a derived emotional response, whereby behavioral frustration develops into what we call *indirect emotional frustration*. Such frustration is global in nature: by experiencing behavioral frustration over the course of reading, the reader comes to experience a general frustration related to global uncertainty about the meaning, or 'message', of the text. In Sect. 4 we describe a particular instantiation of an *indirect emotional frustration*, and then, in Sect. 5, we summarize our proposed typology of narrative frustrations and outline questions for further research, including the possibility for experimental work.

2 Behavioral Frustration

In this section, we consider three types of narrative frustration which have behavioral complexity as their source:

Processing complexity → Behavioral frustration		
1. impatience	2. incoherence	3. narrative garden paths

There is a long line of research in language processing showing that increasing syntactic complexity has behavioral effects (longer reading times) (Frazier and Fodor 1978; Ferreira and Charles 1986; Altmann and Steedman 1988; Trueswell et al. 1994; MacDonald 1994; Jurafsky 1996; Gibson 2000; Levy 2008), and dual-task studies suggest that narrative comprehension competes with other cognitive processes for working memory resources (George and Mannes 1994; Bates et al. 1999; Pearlmutter 1999; Robertson et al. 2000). The class of narrative frustrations that we propose here have the same processing complexity at its core. While classical cases of complexity in parsing involve uncertainty about the syntactic structure of a sentence, these cases of narrative frustration arise from (local) uncertainty about narrative content or discourse structure. As with sentence-level processing, we suggest that the language comprehension system is driven by the pressure to reduce uncertainty at the level of discourse.

2.1 Impatience

Impatience is a well-documented frustration which is studied through very different lenses. For example, in biomedical ethics, it may be studied through a clinician's response to a narrative of a patient with intellectual delay (Pierce and Arora 2015); in psycholinguistics, it is one of the motivating factors behind surprisal models of processing (Hale 2001; Levy 2008), which assume that readers sometimes encounter unexpected continuations, which come with more processing costs than expected ones. In this subsection, we consider impatience from the perspective of literary fiction: a reader's impatience is triggered by their desire to have information they are not (yet) privy to. Studies on the processing and memory representations of narrative texts suggest that readers encode the content of a text in a mental model (or situation model), which includes spatial, temporal and causal information that need not be part of the linguistic content (Perrig and Kintsch 1985; Mandler 1987; Zwaan et al. 1995). From this perspective, impatience is driven by the pressure to "fill in" elements of this mental model. Indeed, the literature provides numerous demonstrations that readers readily enrich their memories of a text with inferences based not only on

the text itself, but on expectations about probable events and states of affairs in the world (Bransford et al. 1972; Kintsch 1988; Graesser et al. 1994).

Here, we draw on insight from Altshuler (2021) to briefly consider how and why readers of Ian McEwan's 2001 novel, *Atonement*, may experience impatience.

Atonement is a story in which the protagonist, and later identified narrator, Briony Tallis, seeks atonement for a crime she committed as a child: a false accusation of sexual assault that has nightmarish consequences for the accused, Robby Turner and Cecilia Tallis (Robby's lover and Briony's sister). As noted by Altshuler (2021), the genius of *Atonement* is that Briony seeks atonement through her own storytelling despite the knowledge that it's an impossible task. She asks:

> How can a novelist achieve atonement when, with her absolute power of deciding outcomes, she is also God? There is no one, no entity or higher form that she can appeal to, or be reconciled with, or that can forgive her. There is nothing outside her. In her imagination she has set the limits and the terms. No atonement for God, or novelists, even if they are atheists. It was always an impossible task, and that was precisely the point. The attempt was all.

If it's not possible to achieve atonement through storytelling, then why attempt it? McEwan answers this question (via Briony) as follows: While storytelling may not guarantee atonement for the storyteller, it invites imaginative engagement through which the audience may adjudicate the storyteller's crime.

According to Altshuler, Briony uses three ingredients to sway the verdict in her favor:

i. Begin by pretending that someone highly reliable is telling your story.
ii. Then invoke empathy from the audience for your actions by giving them hope.
iii. Finally, reveal to the audience that you're actually the narrator.

Altshuler notes that what's remarkable about *Atonement* is not the recipe itself, but the way the ingredients are put together. For our purposes, what's noteworthy is that Briony's success in putting (i)-(iii) together is dependent on a reader's narrative frustration. In what follows, we briefly discuss how (i) involves impatience. We discuss (ii) and (iii) in light of another narrative frustration in Sect. 4.

Key to (i) is the notion of *reliable narration*. Borrowing terminology from narratology research, the most reliable narrator is one that is *heterodiegetic*: someone who has access to the characters' innermost thoughts at all times, while not participating as a character in the fictional universe created by the author. In short, the most reliable narrator is 'God'. And, indeed, until the very end of the novel, readers of *Atonement* typically assume that 'God' is telling the story, despite the fact that the narrator is actually Briony Tallis, who - as a character of the fictional universe - has limited access to facts and a limited understanding of what she experiences.

To convince the readers that 'God' is telling the story, Briony forces them to examine key episodes in the story multiple times from the perspective of different characters (Mullan 2015). Who but 'God' could have such access? The perspective of some characters offers far less insight than the perspective of characters who were more intimately involved in Briony's crime (including, of course, Briony's own perspective). This is frustrating for some readers because each new perspective contributes to thwarting narrative progression: the reader has to wait before being privy to Briony's crime and the consequences which are constantly foreshadowed to matter most.

One clear example of a narrative halt is Chapter 6 of the novel, which is told through the perspective of Emily Tallis, Briony's mother, who retreats to her bedroom after lunch and anticipates a dinner party. Here is a blurb describing Emily's thoughts, which quickly shift from the dinner party to her children, Leon and Cecilia:

> She had ordered a roast for this evening and it would be too stifling to eat. She heard the house creak and it expanded. Or were the rafters and posts drying out and contracting against the masonry? Shrinking, everything was shrinking. Leon's prospects, for example, diminishing by the year, as he refused the offer of a leg-up from his father, the chance of something decent in the civil service, preferring instead to be the humblest soul in a private bank, and living for the weekends and his rowing eight. She could be angrier with him if he were not so sweet-natured and content and surrounded by successful friends. Too handsome, too popular, no sting of unhappiness and ambition. One day he might bring home a friend for Cecilia to marry, if 3 years at Girton had no made her an impossible prospect, with her pretensions to solitude, and smoking in the bedroom, and her improbably nostalgia for a time barely concluded and for those fat girls in glasses from New Zealand with whom she had shared a set, or was it a gyp?

While Emily Tallis's thoughts reveal some background information about her children, these thoughts may not be interesting to some readers, who have just been told in a previous chapter that Cecilia Tallis undressed in front of Robbie Turner and that Robbie was then invited to the dinner party without Cecilia knowing. Emily Tallis is not privy to these 'steamy' details and her thoughts may, therefore,

be perceived to be quite dull by comparison. Readers are waiting for Cecilia to reunite with Robby at the dinner party, while also anticipating that this is when Briony's crime will take place. Therefore, Emily Tallis's drifting thoughts about the evening roast may be perceived as a mere distraction from the 'real' action.

This technique of thwarting narrative progression through perspective shifting is the hallmark of crime fiction, where the revelation of 'who did it' (and/or 'why they did it') is a painstakingly slow process, often resulting in a reader's impatience.[2] When the impatience is extreme, readers are known to skip ahead, possibly to the end.[3] This is the case for some readers of *Atonement*, whose Part One reads much like crime fiction. This has to do, in part, with how impatience is linguistically cued in the novel, namely through Free Indirect Discourse: a report of what a character is saying or thinking rather than a narrator's description of what the (fictional) world is like (see e.g. Banfield 1982; Doron 1991; Sharvit 2008).[4]

The passage above (describing Emily Tallis's drifting thoughts) is a clear case of Free Indirect Discourse. Perhaps the most obvious linguistic ques are the questions being asked (e.g. 'Or were the rafters and posts drying out and contracting against the masonry?'): they do not signal that the narrator is asking the reader for input. Rather, these are the questions that Emily Tallis is asking herself.

Altshuler (2021) offers a further example from Chapter 8, which contains other linguistic cues of Free Indirect Discourse. Here the reader is privy to Robbie Turner's attempt to make sense of Cecilia Tallis' previous act of undressing in front of him:

> Even in her anger, she wanted to show him just how beautiful she was and bind him to her. How could he trust such a self-serving idea derived from hope and desire? He had to. He crossed his legs, clasped his hand behind his head, feeling his skin cool as it dried. What might Freud say? How about: she hid the unconscious desire to expose herself to him behind a show of temper. Pathetic hope! It was an emasculation, a sentence, and this - what he was feeling now - this torture was his punishment for breaking her ridiculous vase. He shouldn't never see her again. He had to see her tonight.

Notice that there is no quotation and there are no explicit attitude ascriptions (e.g., 'Robbie thought that...'), and yet we intuitively read this passage as describing Robbie Turner's thoughts (and not the narrator's). The 'how' and 'what' questions describe what Robbie is asking himself. Similarly, the exclamative ('Pathetic hope!') expresses Robbie's (and not the narrator's) frustration. Finally, the indexicals 'now' and 'tonight' refer to Robbie's (and not the narrator's) current moment and incoming evening respectively.

There is an ongoing debate within formal semantics research about the nature of Free Indirect Discourse: is it more like Indirect Discourse (e.g., 'Robbie thought that Cecilia desired him'), or more like Direct Discourse (e.g., 'Robbie thought: "Cecilia desires me"').[5] Luckily, we can appreciate the dual role that Free Indirect Discourse plays in *Atonement* without settling the hard semantic question. Not only does it cue impatience for some readers (forcing them to consider multiple viewpoints, thereby invoking a narrative halt), but in so doing, it also allows Briony to maintain her masked presence as 'God', which is central to her seeking atonement.

2.2 Incoherence

Incoherence is a phenomenon that is well-studied across many disciplines, including film studies (e.g., Naremore 1988; Berliner 2010; Virvidaki 2014), narratology (e.g., Danhi et al. 1983; Lasair 2008; Toolan 2013), philosophy (e.g., Kieran 1997; Olsson 2005; Schippers 2014; Cumming et al. 2017), computer science (e.g., Beigel and Feigenbaum 1992; Smith 2000; Cai et al. 2021), and psychology (e.g., Lysaker et al. 2003; Jouen et al. 2021; Vanderveren et al. 2021). One way of defining *incoherence* is in terms of uncertainty about how narrated events are related. This psychological view underlies some linguistic approaches to the study of discourse. To get a sense of what such approaches are like, compare (1) and (2) from Hobbs (1979):

(1) John took a train from Paris to Istanbul. He has family there.
(2) #John took a train from Paris to Istanbul. He likes spinach.

While (1) is a perfectly acceptable discourse, (2) is incoherent. To see why this is, note that (1) does not merely list two random facts about John. Rather, a reader normally infers an explanatory

[2] Of course, in other genres, perspective shifting may have an effect that is quite different from impatience (it may, for example, have a pleasant effect). Thanks to an anonymous reviewer for asking us to clarify this point.

[3] This crucially differs from popular crime fiction by, e.g. Elmore Leonard, which is known to be a 'page-turner'. As noted by Leonard himself: "I try to leave out the parts that readers tend to skip" (Leonard 2021).

[4] While Free Indirect Discourse is a common linguistic technique for thwarting narrative progression, there are others, especially when we consider other genres. For example, Eco (1994) considers historical fiction, citing his own writing, in which he purposefully provides a long historical description (of some event or place), as a way of stalling, thereby making the readers impatient, and at times forcing them to skip ahead.

[5] See, e.g. Eckardt 2014; Maier 2015.

connection between these two pieces of discourse, which is necessary for fully understanding the speaker's contribution in (1). When the relationship between these discourse units is not immediately apparent, readers draw on their world knowledge to search for a plausible connection, even manufacturing implausible ones at extra processing cost due to reasoning about potential explanations. Readers of (2) are left searching for an explanatory connection: is Istanbul famous for its spinach or does Paris have bad spinach? As noted by Hobbs (cited by Kehler (2002)):

> ...the very fact that one is driven to such explanations indicates that some desire for coherence is operating, which is deeper than the notion of a discourse just being 'about' some set of entities. (p. 67)

Hobbs (1985) explains this desire for coherence in terms of David Hume's proposal that our ideas are associated according to three fundamental principles:

> Though it be too obvious to escape observation that different ideas are connected together, I do not find that any philosopher has attempted to enumerate or class all the principles of association—a subject, however, that seems worthy of curiosity. To me there appear to be only three principles of connection among ideas, Resemblance, in time or place, Cause or Effect. (Hume 1748/1999)

One of Hobbs' major contributions was to apply the three Humean principles to natural language discourse. He introduced the notion of a *coherence relation* to define a coherent discourse: a discourse is coherent if and only if the units that make up the discourse are related by at least one coherence relation. For example, (1) harbors the coherence relation, Explanation, which is a kind of Humean Cause/Effect relation. The examples in (3) below illustrate Humean Resemblance relations, Parallel and Contrast, cued by *and* and *but* respectively; the example in (4) illustrates the Humean Contiguity relation, Narration, which entails narrative progression.

(3) a. Jill built a snowman, and Sue made snow angels.
b. Jill likes building snowmen, but Sue prefers making snow angels (Kehler 2019).

(4) A huge storm hit Scranton this weekend. Many children were seen out playing in the snow (Kehler 2019).

Following Hume's insight, Hobbs proposed that the associated principles underlying the establishment of coherence relations are psychological in nature:[6]

> It is tempting to speculate that these coherence relations are instantiations in discourse comprehension of more general principles of coherence that we apply in attempting to make sense out of the world we find ourselves in, principles that rest ultimately on some notion of cognitive economy. [...] Recognizing coherence relations may thus be just one way of using very general principles for simplifying our view of the world. (Hobbs 1990)

Hobbsian ideas have been made formally precise in Segmented Discourse Representation Theory (SDRT, Asher 1993, Asher and Lascarides 2003, Asher and Vieu 2005, Hunter et al. 2018, *inter alia*), which aims to model what coherence relations mean, and how discourse structures are constructed. In particular, SDRT models discourse structure as a graph over semantic representations of pieces of discourse or *discourse units* (DUs), which come in two types: (i) *elementary discourse units* (EDUs), which are the atoms of a given discourse, and (ii) *complex discourse units* (CDUs), which are built out of EDUs and may include only two or three EDUs or correspond to several paragraphs or even multiple pages of text.[7] On this view, a *discourse* is simply two or more EDUs that are connected by edges of a graph. In other words, every discourse (regardless of length) is, simply, a CDU.[8]

As for coherence relations in SDRT, they are labels for edges of the graph.[9] Hence, a coherence relation holds between two nodes of a graph. This allows us to define *coherent* and *incoherent* discourse as follows:

(5) SDRT Definition of Discourse (In)coherence: A *coherent discourse* is a CDU whose edges are all labeled, while an *incoherent discourse* is either a disconnected graph or a CDU which contains an unlabeled edge.

Below is a toy SDRT analysis of a coherent discourse:

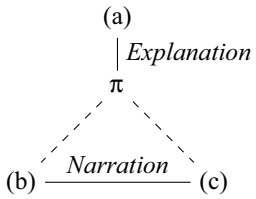
(6) a. Arash doesn't trust Akna.
b. She promised to help him once,
c. and then later forgot about it.

[6] For alternative views of coherence relations, see, e.g. Longacre 1983; Mann and Thompson 1986; Sanders et al. 1992. See Asher and Vieu 2005 for more discussion, and Kehler (2019), Jasinskaja and Karagjosova (2020) and Altshuler and Truswell (2022 , Ch.5) for recent overviews.

[7] While SDRT does not provide an official definition of EDUs, Afantenos et al. (2012) loosely describe them as 'clauses, appositions, some adverbials', and mention that 'each EDU contains at least one eventuality description, and often only one'.

[8] The idea that a discourse has to describe more than one eventuality (and hence cannot be an EDU) can be ascribed to pioneering work by Labov (1972), who proposed that a narrative discourse must contain at least two clauses. This view is in opposition to Genette (1980), who considers a sentence like *The king died* as a narrative. He writes: "That, it seems to me, is enough...if the crowd wants details, it will have them."

[9] In SDRT, an edge may have several (nonconflicting) labels.



The node (a) in the graph is a placeholder for the semantic representation of (6a). This node is connected to another node, π, which is a CDU, consisting of (b) and (c), which are placeholders for the semantic representations of (6b) and (6c) respectively. Crucially note that the edge connecting (a) and π is labeled with Explanation. This correlates with the intuition that (b) and (c) collectively *explain* (a), i.e. the reason that Arash doesn't trust Akna is two-fold: Akna promised to help Arash and then later forgot about her promise. Moreover, the edge connecting (b) and (c) is also labeled, namely with Narration, which entails narrative progression: we understand that first Akna promised Arash and *then* she forgot her promise.

While coherent discourses are quite easy to come up with and find in a corpus, the same cannot be said for incoherent discourses, with (2) serving as a kind of toy example. In what follows, we offer two kinds of incoherent discourses, in line with (5), that come from literary fiction. Our purpose here is not to offer an analysis of these fictions, but rather show how literary fiction provides ideal data for further studying narrative frustration in terms of state-of-the-art semantic theories like SDRT.

One the most extreme examples of incoherence in literary fiction (that we know of) comes from *Eden Eden Eden* by Pierre Guyotat, which caused a huge scandal upon publication in France in 1970, being banned as "pornographic" by the French Ministry of the Interior. It remained under governmental censorship for 11 years. The setting of *Eden Eden Eden* is the Algerian desert in a time of civil warfare. It describes a series of sex acts by a teenage Algerian prostitute boy named Wazzag. These acts escalate in scale, intensity and number. As noted by Graham Fox, "The book stinks of sperm and killing. It's a malignant orgasm. It is the perfect book for contemporary Europe. Guyatat's language is welded into a headlong rush into the wild terrain of obscenity" (Guyotat 2003). Here is the opening of the novel:

> / Soldiers, helmets cocked down, legs spread, trampling, muscles drawn back, over new-born babes swaddled in scarlet, violate shawls: babies falling from arms of women huddled on floors of G.M.C. trucks ; driver's free hand pushing goat thrown forward into cab ; / Ferkous pass, RIMA platoon crossing over track ; soldiers jumping out of truck ; RIMA squad lying down on gravel, heads pressed again flint-pitted, thorn-studded tires, stripping off shirts in shadow of mudguards ; women rocking babies against breasts ; rocking movement stirring up scents sharpened with bonfire-sweat impregnating rags, hair, flesh : oil, cloves, henna, butter, indigo, black antimony—in Ferkous valley, below breakwater heaped with charred cedars, barley, wheat, bee-hives, tombstones, drink-stand, school, gaddous, fig-trees, mechtas, stone walls oozing spattered with brains, orchards blooming, palm-trees, swollen in fire, exploding : flowers, pollen, buds, grasses, paper, rags spotted with milk, with shit, with blood, fruit feel, feathers, lifted, shaken, tossed from flame to flame in wind pulling up fire, from earth ; slumping soldiers straightening up, sniffing tarpaulin flaps, pressing tear-stained cheeks onto burning rails, rubbing members against dusty tires, sucking in cheeks, drooling over painted wood ; truck-squad, down in dry river bed, cutting rhododendrons, milk from stalks mixing on knife-blades with blood of youths disembowelled in onyx-quarry against central vein ; soldiers cutting back, pulling up saplings, digging out roots with studded boots ; others kicking, swinging lopsided; camel-dung, grenades, eagle carrion ; RIMA squad clambering into trucks, falling into women, guns at side, hardened members spurring violet rags clasped between women's thighs ; soldier, chest crushing baby sucking at breast, parting woman's hair pushed over eyes, stroking forehead with fingers covered in onyx ; orgasm spurting saliva from moth, dowsing baby's battered scalp ; retracted member resting softening on shawls soaking up dye ; wind shaking trucks, sand whipping against axles, sheet-metal ; /

Not only is the punctuation and syntax of Guyatat's language remarkable, but so are the rhetorical connections that readers are asked to make. Whatever narrative progression that is inferred here, it is blurred and halted with elaborations, often consisting of a list of objects, vividly described. As noted by Roland Barthes, *Eden Eden Eden* is a 'free text', in the sense that it is free of "traditional constituents of discourse...Guyotat produces a new element...a single sentence which never ends" (Guyotat 2009). SDRT offers a way of making sense of this insight, allowing us to analyse how the incoherence of the text relates to: (i) difficulties in segmenting this text (what are the linguistically relevant EDUs and CDUs?) and (ii) the difficulties in labeling edges of the graph that results from the segmentation of this discourse (what coherence relations hold between the DUs?).

Another example of a text which exemplifies incoherence is *Triptych* by Claude Simon. This novel is based in part, on Simon's childhood memories on the Jura mountains in Eastern France. This novel contains three stories: one in which a young girl drowns; one about an unhappy marriage; and one about a woman's involvement in an incident at a summer seaside resort. What's remarkable about *Triptych* is that there is nothing that marks separation of the three stories. As noted by John Fletcher, "the book is divided into three parts; but these are

arbitrary divisions and bear no relation to the subject matter. [They] make the book resemble a triptych (as in a painting), physically as well as metaphorically. The intercalated fragments of the stories seem to get longer as we progress through the book, as if the whole mechanism were decelerating (Simon 1977)." Fletcher adds that "The three stories in the novel can start to be told in reverse, like a film run backwards through the projector; the narrator imagines the reader doing the same, coming back in search of a passage misread or not paid proper attention to" (ibid). SDRT offers a way of making sense of this insight, allowing us to analyse how the incoherence of the text relates to readers finding it difficult to create graph structures that are *disconnected* in the intended places. In other words, unlike *Eden Eden Eden*, where the difficulty lies in building a discouse structure, *Triptych* provides difficulties for the reader in finding the right connections (and disconnections) between discourse structures that are already built. In both fictions, the ensuing narrative frustrations are intended by the author; they are of paramount importance to the reader's aesthetic experience.

2.3 Narrative Garden Path and Unfulfilling Surprise

In this subsection we consider a phenomenon that has not received much attention in philosophy or linguistics : *narrative garden path*. The notion of a garden path comes from an early parsing model (Frazier and Fodor 1978), according to which a syntactically favored parse can lead a reader 'down a garden path' when the disfavored parse turns out to be the correct one. In such cases, the reader is forced to reanalyse their parse of the sentence when confronted with the disambiguating information, with accompanying behavioral effects (slower reading) reflecting the increased processing complexity. Other parsing models make different assumptions about the source of the complexity—for example, surprisal-based and other parallel processing models assume that the parser does not choose the single, likeliest parse at any point of ambiguity, but rather reranks all possible parses in terms of their likelihood with each additional piece of information (e.g. Levy 2008). While the reason for increased complexity may be reanalysis in one model and making a large update to a probability distribution in another, we know that making a substantial change to what was assumed to be a correct analysis is cognitively costly.

One notable exception to the scarcity of research on narrative garden path comes from research on humorous texts (e.g., jokes, riddles), which has been guided by a hypothesis first developed by Hockett (1973) and Raskin (1983) that garden path is a necessary condition for humor. An important consequence of this research is that garden path is hypothesized to not be confined to sentences. Humor research has not, however, provided means for comparison with the canonical, 'syntactic' cases of garden path beyond the general impression of humorous texts as "apparently involving very similar error-recovery and reanalysis routines" (Jahn 1999). One reason for the shortcoming is that experimental online studies on narrative garden path are non-existent. Another shortcoming is that integrated, formal theories of discourse have not been considered in humor research.

Narrative garden path raises foundational questions for formal theories of discourse, particularly how to account for the provisional nature of linguistic interpretation, i.e. the observation that some expressions are subject to reanalysis as a discourse unfolds. Research by Haug (2014a, 2014b) is directly relevant. It extends *Compositional Discourse Representation Theory* (CDRT, Muskens 1996) to provide a theory—called *Partial CDRT* (or PCDRT)—of how to represent and interpret *discourse referents* (drefs), i.e., abstract objects that stand for the things we narrate (e.g., individuals, events).[10] An important innovation of PCDRT is that it semantically distinguishes between drefs that are introduced by proper names, indefinites and verbs from those that are introduced by anaphoric expressions, e.g., third person pronouns, whose values depend on prior discourse.

Altshuler and Haug (2017) illustrate the potential of using PCDRT to analyze narrative garden path through the toy example in (7), from Smyth (1994) :

(7) a. Phil tickled Stanley.
    b. Liz poked him.

This mini-discourse has two truth-conditionally distinct readings. On one reading, 'he' picks out Stanley: we understand that Phil and Liz are both playing with Stanley. On the other reading, 'he' picks out Phil: we understand that Phil's tickling Stanley prompted Liz to play hero and poke Phil.[11] Let us assume, for sake of illustration, that a reader of (7) understands 'he' as picking out Stanley. PCDRT would provide the following representation of this interpretation:

[10] The notion of a discourse referent goes back to Karttunen (1976)'s idea that grammatical elements can introduce an abstract object, whose "lifespan" determines how long it can serve as an antecedent for anaphoric expressions later in the discourse. A dref can be thought of as a variable under an assignment function that stands for an entity introduced in the discourse (Kamp 1981), a constant function that takes an information state as an argument and returns an object in that state (Muskens 1996), or as partial function (Haug 2014a).

[11] Note that prosody plays an important role in disambiguating between the interpretive possibilities.

(8)
$$\left\langle \begin{array}{|l} x_1\ x_2\ e_1\ x_3\ \bar{x_4}\ e_2 \\ \hline Phil(x_1), Stanley(x_2) \\ tickle(e_1), agent(e_1, x_1) \\ patient(e_1, x_2), Liz(x_3) \\ poke(e_2), agent(e_2, x_3) \\ patient(e_2, \bar{x_4}) \end{array}, \mathscr{A} : \bar{x_4} \mapsto x_2 \right\rangle$$

The 'top compartment' of the representation (the 'universe') keeps track of the drefs (x_1, x_2, e_1, etc.) in the order that they are introduced, while the 'bottom compartment' of the representation relates drefs via thematic roles (Phil is the agent of the tickling event, Stanley is the patient of the tickling event, Liz is the agent of the poking event, and so on). Crucially, anaphoric drefs have a special status in the formal system (viz. the bar on $\bar{x_4}$); they are assigned a value by a function ($\mathcal{A}$) that is derived pragmatically. The consequence is that the value of an anaphoric dref is subject to reanalysis with each update of the discourse representation. In other words, *every update of a given discourse representation is a potential narrative garden path*. In (8), $\bar{x_4}$ is mapped onto x_2, which ensures a representation in which Stanley was poked by Liz (i.e., a parallelism is established between Phil ticking and Sue poking Stanley).

Now, let us now assume that the discourse continues as follows:

(9) Phil stopped. Stanley thanked her.

This additional information would serve as the error signal of a garden path in (7). In PCDRT, this would amount to a reanalysis of the mapping in (8) from $\bar{x_4}$ onto x_2. This is illustrated in (10), which represents the combination of (7) and (9):

(10)
$$\left\langle \begin{array}{|l} x_1\ x_2\ e_1\ x_3\ \bar{x_4}\ e_2\ e_3\ e_4\ \bar{x_5} \\ \hline Phil(x_1), Stanley(x_2) \\ tickle(e_1), agent(e_1, x_1) \\ patient(e_1, x_2), Liz(x_3) \\ poke(e_2), agent(e_2, x_3) \\ patient(e_2, \bar{x_4}) \\ stop(e_3), agent(e_3, x_1) \\ thank(\bar{e_4}), agent(e_4, x_2) \\ patient(e_4, \bar{x_5}) \end{array}, \mathscr{A} : \bar{x_4} \mapsto x_1, \bar{x_5} \mapsto x_3 \right\rangle$$

Here we see that $\bar{x_4}$ is now mapped onto x_1, ensuring a representation in which Phil was poked by Liz.[12]

PCDRT not only provides means for representing narrative garden path, but it crucially provides the formal foundation for evaluating these representations in a world model (i.e., how their truth-conditions are computed; see Haug 2014). What's missing however, are constraints on the way anaphoric drefs are assigned a value. In particular, we need a way of predicting when anaphoric drefs are likely to be reanalyzed and when they aren't. To the best of our knowledge, there is currently no model that is capable of making such a prediction. What is needed is a pragmatic algorithm that computes costs associated with dref reanalysis. Ideally, these costs would reflect the processing difficulty of narrative garden paths. When the costs are too high, we would expect reanalysis to be unlikely or very costly, as in extreme cases of syntactic garden paths.

Of course, much experimental and theoretical work is necessary to get such an algorithm off the ground. For the purposes of this paper, we note—in light of discussion in the last subsection—that a promising avenue to pursue would be to say that the coherence of a discourse impacts which drefs are at the center of attention and which are inaccessible from memory.[13] In what follows, we would like to show how literary fiction provides ideal data for further studying narrative garden path, with real potential to inform semantic theories like SDRT and PCDRT. In particular, we will discuss a *frustrating instance* of narrative garden path in Gérard de Nerval's *Sylvie*, where reanalysis leads to an interpretation that is less satisfying for the reader, due to unfulfilled expectations.[14] In particular, as noted by Hobbs and Violi (1990), some readers of *Sylvie* fall into the trap of believing that the narrator and his childhood friend have been reunited and will fall in love. But then it becomes clear that what one took to be the reunion was an earlier encounter and that love is unlikely. Thus, in addition to reanalysing their understanding of the narrative, readers face a resolution to the garden path which violates a strong expectation about narrative and emotional content. We reserve the term *unfulfilling surprise* for the narrative frustration that ensues in such a case.

Below is a passage (translated into English), in two parts, that is a source of the narrative garden path.

(11) What a dreary drive to the road to Flanders is at night; things only start looking more attractive once

[12] In addition, $\bar{x_5}$ is mapped onto x_3, ensuring a representation in which Liz is the patient of Stanley's thanking.

[13] Such an analysis draws inspiration from work on Centering Theory (Grosz and Sidner 1986; Grosz et al. 1995); see recent work by Stojnić and Altshuler (2021) and references therein for further discussion.

[14] See also work by Jahn (1999), who discusses two cases of narrative garden path in literary fiction. The first case is James Thurber's short story *The Secret Life of Walter Mitty*, whose opening describes an action-packed military adventure, which the reader assumes is

you get into the forested areas. To either side, there's the same endless file of trees coming at you with their vague, twisted shapes. And beyond this, squares of green fields or plots of ploughed earth bounded to the left by the bluish hills of Montmorency, Ecouen and Luzarches. Here is Gonesse, a vulgar little town full of memories of the League and the Fronde. Beyond Louvres there is a lane lined with apple trees whose flower sI have often seen glimmer in the night like the stars above - it was a short cut to the outlying villages. While the coach is making its way up to the hills, let us piece together the memories of the days when I often visited these parts.

(12) Some years had elapsed: my meeting with Adrienne in front of the castle had already become no more than a childhood memory. I found myself in Loisy for the annual parish feasts. I once again joined the Knights of the Bow, taking my place within their ranks ason former occasions.

Chapter III of *Sylvie* ends with (11): a description of what the narrator sees on his journey to Loisy to see his childhood friend, Sylvie.[15] Chapter IV opens with the pluperfect description in (12), *Some years had elapsed*, which gives rise to the question: elapsed since what point in time? Subsequently, a key narrative choice point emerges for the reader: (i) the narrator has arrived in Loisy or (ii) the narrator is still on the coach, recounting an earlier experience in Loisy. Readers that favor (i) likely interpret the eventive description, *I found myself in Loisy* in (12), and the mentions of reoccurring events thereafter as cues of narrative progression. This interpretation leads to unfulfilling surprise for the reader later in the novella, where they discover that (ii) was actually the right narrative choice; the narrator is yet to be reunited with Sylvie and the prospective romance is much less promising than what seemed to be the case, i.e. had (i) been the correct interpretation.

The impact of the unfulfilling surprise goes beyond the behavioral complexity associated with reanalysis. It is important for the reader to experience because it mirrors the unreliable narrator being "caught in a hallucinatory world of his own creation [and struggling] to regain control of his illusions" (Bray 2006). In Sect. 4 we will call this 'mirrored frustration'. It allows Nerval to show how first-person storytelling can help to form a sense of self for not only the narrator, but also the reader, providing them with a way to resist normative social pressures (Proust 1958). For the current purposes, what's interesting about the narrative garden path in *Sylvie* is that it differs from our toy example in (7) in that it involves several chapters of text and the reanalysis does not concern pronoun resolution (or the interpretation of a particular lexical item). Rather, the narrative garden path has to do with how the events are described and, ultimately, understood to be temporally located. This raises the question of what other kinds of narrative-garden paths are possible and through what grammatical means. We think that exploration of narrative frustration such as unfulfilling surprise offers a fruitful way of addressing this question, which is essential for further development of integrated formal semantic theories of discourse that aim to model a reader's imaginative engagement with fiction.

3 Direct Emotional Frustration

We turn in this section to two types of narrative frustration that stem from a moral clash, where a reader's own morals are in conflict with those of a fictional character or narrator.

Direct emotional frustration	
1. empathetic guilt	2. imaginative resistance

These frustrations may involve, but cannot be reduced to behavioral complexity. Unlike the frustrations described in the previous section, these are situations where the reader appears to have some degree of choice: they can allow themselves to identify with the immoral character, as in the case of *empathetic guilt*, or they can distance themselves from them, as in *imaginative resistance*. What leads a reader to (consciously or unconsciously) adopt one strategy over another is an empirical question we will not address here, but we imagine multiple factors could be involved, including the nature of the immorality, the rationale of the immoral character, how many properties are shared by the character and the reader, and the reader's tendency to empathise with another's perspective (see, e.g. Martha 1985; Walton 1994; Kieran 1995; Carroll 1998). We focus instead on the different impacts these strategies have on the reader's experience.

3.1 Empathetic Guilt

A natural inclination of readers is to engage emotionally with a fictional protagonist. Such emotional engagement is key to an immersive reading experience, where a reader feels 'transported' into a world other than their own

Footnote 14 (continued)

actually occurring in the world of the fiction. However, it quickly transpires that the adventure is really in the mind of the protagonist, Walter Mitty. The second case is Urusala Le Guin's *Mazes*, whose opening describes the narrator being oppressed by an 'alien'. The reader typically assumes that the narrator is human and the 'alien' is not. However, it quickly transpires that the 'alien' is actually the human, and the narrator is not.

[15] Note the narrative metalepsis in final sentence of (11), where arguably, the author (Nerval) intrudes and address the (implied) reader. See Genette (1980) and Fludernik (2003) for discussion of narrative metalepsis and Eco (1999) for discussion of this particular passage.

(Gerrig 1993; Green 2004, 2021). The more emotionally engaged a reader is, the higher the stakes: a good or a bad turn of events for the protagonist not only moves the content of the narrative forward, but has direct impact on the reader's own emotional state. In such cases, we can say the reader identifies with the fictional character, in the sense that they are emotionally invested in what happens to them in the world of the narrative (Coplan 2004; Cohen 2006; Brown 2015).

Empathetic guilt is a narrative frustration that occurs when a reader empathizes towards a character that they know is immoral—a 'fictional monster' (Carroll 1998)—and feels guilt as a result. In extreme cases, readers may choose to resist engaging in this way, either being unwilling or unable to imagine. We come back to imaginative resistance in the next subsection. Here, we investigate how one of Nabokov's short stories, *A nursery tale*, triggers empathetic guilt. We choose to focus on Nabokov's writing because it revolutionized the relationship between the text and the reader. Invoking empathetic guilt from the reader was Nabokov's way of redefining censorship in an attempt to become the most famous author of the twentieth century—something that he arguably achieved.

A nursery tale is a story about Erwin—an extremely shy man who selects in his mind an imaginary harem of women ('his slave girls') that he sees from a streetcar on his way to work. As noted in the opening of the story, Erwin "only once in his life...accosted a woman, and she had said quietly: "You ought to be ashamed of yourself. Leave me alone." Thereafter, he avoided conversation with strange young ladies," choosing instead to approach them in his mind.

Erwin is clearly a creep who objectifies women. Most readers would label him as a 'monster' in the fictional world created by Nabokov. And despite his extreme shyness, the reader is unlikely to empathize with Erwin. That is until Erwin meets Frau Monde, a German middle-aged women who is the Devil. She proposes that Erwin's 'slave girls' can be his, in flesh, for his enjoyment, as long as he selects in his mind an odd number of women before midnight. Of course, Erwin agrees. To spice things up, the Devil appears after Erwin has selected five women, applauding his efforts:

> Excellent. An odd number. I would advise you to stop there. And at midnight–ah, yes, I don't think I told you–at midnight you are to come to Hoffmann Street. Know where that is? Look between Number Twelve and Fourteen. The vacant lot there will be replaced by a villa with a walled garden. The girls of your choice will be waiting for you on cushions and rugs...

This interjection is significant because it glorifies Erwin's revolting practice. Even the disgusted reader may be curious to see whether and how the promised orgy will play out. The interjection is also significant because it raises the question of whether Erwin will listen to the Devil, or whether he will continue his revolting practice (with additional time left, he can select more women). This question serves as a kind of invitation for the reader to be invested in the plot. Erwin has not faced any hurdles despite making a deal with the Devil, and so the reader will likely anticipate that a conflict will arise from Erwin not listening to the Devil.

As anticipated, Erwin does not follow the Devil's advice. By eleven o'clock, Erwin manages to select eleven women. This is when the action picks up:

> Erwin drank a glass of lemonade, consulted his watch, and made for the exit. Eleven clock and eleven women. That will do, I suppose. He narrowed his eyes as he imagined the pleasure awaiting him. He was glad he had remembered to put on clean underwear...He walked, looking down, shaking his head delightedly, and only rarely glancing up to check the street names...at the next corner a short peal of childish laughter caused him to raise his eyes...Erwin's glance lit on the face of the child mincing at the old poet's side...She walked swinging her hips very, very slightly, her legs moved closer together, she was asking her companion something in a ringing voice–and although Erwin gave no command mentally, he knew that his swift secret wish had been fulfilled... "Hey, careful," he suddenly muttered as it dawned upon him that this made twelve–an even number: I must find one more–within half an hour. It vexed him a little to go on searching, but at the same time he was pleased to be given yet another chance. I'll pick up one on the way, he said to himself, allaying a trace of panic. I'm sure to find one! "Maybe, it will be the nicest of all," he remarked aloud as he peered into the glossy night.

This passage is remarkable not because it introduces the conflict (Erwin now needs to find one more woman), but how it does so. Observe the perspective shifting from third person to Erwin's own perspective. This is achieved with the use of 'I', repeated below in bold:

(13) a. Erwin drank a glass of lemonade, consulted hiswatch, and made for the exit. Eleven clock and eleven women. **That will do, I suppose.** He narrowed his eyes as he imagined the pleasure awaiting him.

b. "Hey, careful," he suddenly muttered as it dawned upon him that this made twelve–an even number: **I must find one more–within half an hour**. It vexed him a little to go on searching, but at the same time he was pleased to be given yet another chance. **I'll pick up one onthe way**, he said to himself, allaying a trace of panic. **I'm sure to find one!** "Maybe, it

> will be the nicest of all," he remarked aloud as he peered into the glossy night.

As we saw in Sect. 2.1, Free Indirect Discourse is commonly used to shift perspective from the narrator to a character in the story. Things are arguably different here, however. In Free Indirect Discourse, the referent of 'I' never shifts from the narrator to a character in the story (see, e.g. Schlenker 2004). However, in (13), 'I' picks out Erwin, rather than the narrator. This is surprising given that there are no quotation marks to indicate Free Direct Discourse (cf. *I'll pick up one on the way, he said to himself...*). How to best analyze such occurrences of 'I' remains a question for future research. For current purposes, what is important is that the shift in perspective allows us to enter Erwin's mind and for us to empathize with him. And when we do, Nabokov reminds us that we are empathizing with a 'monster'.[16] Observe how the final sentence of (13b) shifts to third person. In particular we now see overt quotation marks and the use of 'he' to describe Erwin's enthusiasm for finding the thirteenth woman: *"Maybe, it will be the nicest of all," he remarked aloud as he peered into the glossy night.*

The conclusion of the story is Erwin's frantic search for the thirteenth woman. While the description remains from a third-person perspective, it is written in a climatic way:

> And a few minutes later he experienced the familiar delicious contraction–the chill in the solar plexux. A woman in front of him was walking along with rapid and light steps....he yearned so poignantly to overtake precisely *her* and have a look at her face...He marched fast and still could not catch up with her..."Goodness, I've got to see her face," Erwin muttered. "And time is flying."...Once again Erwin came near. One more step, and he would be abreast her..Erwin's momentum almost made him bump into her. She turned her face toward him...

An engaged reader will be on 'the edge of their seat' as the time ticks down to midnight. Who is this thirteenth woman? Will Erwin 'select' her in time? A lot is at stake here! In other words, the reader not only empathizes with the fictional monster, but they begin to root the monster on, hoping that he manages to select woman number thirteen. The reader wants to see 'what happens next'. And this urge to do so may trigger guilt, once the reader realizes that they want a fictional monster to succeed. To make things worse, the reader may continue wanting the monster to succeed, even after experiencing guilt for having wanted this.

Of course, in the end, Erwin does not succeed. The thirteenth woman that he is chasing turns out to be the very first woman that he selected. And this woman tells him: "You ought to be ashamed of yourself...Leave me alone." Some readers may feel like these very words are now directed at them: "You, reader, ought to be ashamed for empathizing with a monster. You get what you deserve."

3.2 Imaginative Resistance

A way to avoid guilt is to not be complicit. Imaginative resistance is "the puzzle of explaining our comparative difficulty in imagining fictional worlds that we take to be morally deviant" (Gendler 2000). David Hume's *Of the Standard of Taste* is often cited as the first discussion of this phenomenon, with Walton (1994) and Moran (1994) being the pioneers of the contemporary debate.[17] Here is an example from Altshuler and Maier (2022):

(14) Sara never liked animals. One day, her father caught her kicking the neighbor's dog. He got really angry and she was grounded for a week. To get back at her father she poured bleach in the big fish tank, killing the beautiful fish that he loved so much. Good thing that she did, because he was really annoying.

The imaginative engagement of many readers breaks down in the final sentence of (14). This is due to the intuition that is not, in fact, a good thing that Sara killed the beautiful fish that her father loved. That is, many readers will likely conclude that the final sentence in (14) is *false in the fiction*. But how can that be? Is it not up to the author to decide that this is a good thing to do (in that fictional world)? After all, many authors have described awful, immoral acts that are true in the fictional world that they have created. So what what goes wrong here?

Altshuler and Maier (2022) propose that imaginative resistance is a breakdown of the default interpretation strategy, which they called *Face Value*: every proposition expressed by the statements that make up the text should be assumed true in the relevant fiction. Defining imaginative resistance in this way allows Altshuler & Maier to consider interpretative 'coping' strategies which help the reader overcome that initial resistance and properly engage with the story regardless. The two coping strategies they consider are Character Perspective and Narrator Accommodation. In their own words:

[16] As noted by an anonymous reviewer, it's not always that case that a shift to first-person perspective leads to empathy. See Keen (2006, 2007) for more discussion.

[17] For detailed overviews of the state of the debate in philosophy, see Liao and Gendler (2016) and Tuna (2020). For recent experimental research on imaginative resistance, including in psychology, see e.g., Liao et al. (2014), Kim et al. (2018), Black and Barnes (2017), Campbell et al. (2021).

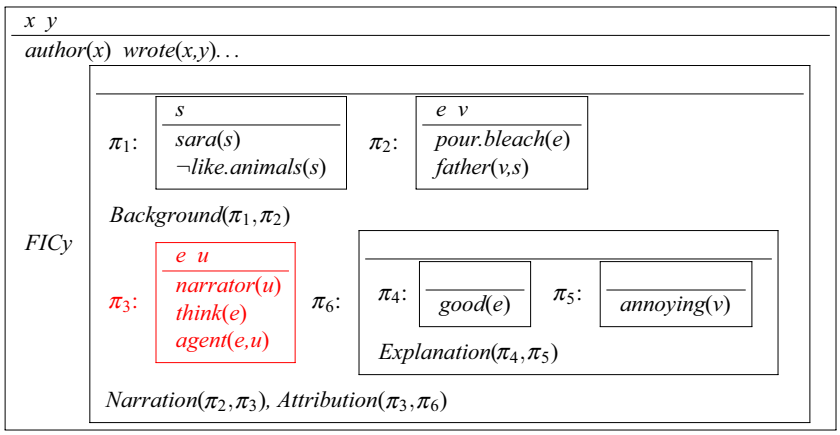
The Character Perspective strategy involves viewing a certain passage as involving a shift to the perspective of one of the salient characters (Sara). Such a perspective shift typically involves recognizing the passage as a (more or less covert) report construction, like free indirect discourse, which means we're describing not a deviant story world but the character's deviant thoughts. The Narrator Accommodation strategy, on the other hand, involves inferring a personal narrator (an implicit 'I') and interpreting the relevant passage as a description of their unreliable mental state.

Both of these coping strategies involve a reanalysis: a fictional world that conflates the perspectives of the reader, the character, and the narrator is reanalysed to include two distinct perspectives. Experimental studies on dialogue suggest that keeping track of multiple mental states in a discourse context is cognitively costly (Black et al. 1979; Millis 1995; Duran et al. 2011); as such, these strategies reflect a trade-off between processing difficulty and moral complicity.

Altshuler & Maier show that SDRT can be useful in spelling out how these two coping strategies affect the semantic interpretation of the text. Below is the semantic representation they provide for Narrator Accommodation in (15), which is a simplified version of (14).

(15) Sara never liked animals … she poured bleachin the big fish tank … Good thing that she did, because he was really annoying.

(16)



In the representation above, the world of the author is distinguished from the world of the fiction by assuming a fictional operator. Following Lewis (1978), FIC$_y$ is interpreted as a modal operator that describes the fictional universe created by the work y (which is written by author x). Disregarding the red box for now, what's represented in this fictional universe is it is a good thing to kill your father's beloved pets because you are annoyed.[18] This Face Value interpretation is far-fetched and hard to accept. Hence, the reader may want to look for a different interpretation, where the morality of fictional world is more in line with the reader's sense of morality. As noted by Altshuler & Maier, a Character Perspective strategy would attribute the positive evaluation of a dead fish to Sara. However, it does not seem plausible for Sara to explicitly evaluate her own actions by saying to herself "good thing that I did". The other, strategy, Narrator Accommodation, is more plausible, and that is what the red box above represents. The idea is that when faced with imaginative resistance, a reader may accommodate an explicit personal narrator and then attribute the immoral evaluation to them. On this interpretation, the moral code of the fictional world need not be fundamentally different from our own—the blame goes to an opinionated, unnamed fictional narrator who's telling the story and commenting on the events. The reader remains blameless at the cost of maintaining mental representations of two perspectives instead of one.

A question that remains outstanding is whether some readers would choose to interpret immoral fiction at face value and if so, why they may choose do so. To the best of our knowledge, this question has not been explored, at least not in the context of research on imaginative resistance. One reason is that there is currently a debate in philosophy as to whether imaginative resistance could be attested in literature or only found "in the poor creations of impoverished skill and imagination that have

[18] Note that this representation is equivalent to the graph notation introduced in Sect. 2.2, where we saw that coherence relations are labels for edges. Here we see that the edge connecting π_1 and π_2 is labeled with the coherence relation, Background, the edge connecting π_2 and π_3 is labeled with the coherence relation, Narration, and so on.

served as examples in the philosophical literature" (Todd 2009). In what follows, we briefly consider Daniil Kharms' work as a candidate to trigger imaginative resistance for the reader, and discuss why the reader may nevertheless choose to accept it at face value, despite the initial resistance.

Daniil Kharms once wrote: "I am interested only in nonsense...Life interests me only in its most absurd manifestations" (Yankelevich 2009). Absurd life, for Kharms, was real life. He wrote in Leningrad, during the Great Terror, when Stalin's purges were at their height and dire hunger and poverty were rampant. Kharms' conception of 'reality' motivated him to deconstruct the conception found in prior avant-garde literature (Iampolski 1998) and thereby "save literature from its enslavement to progress" (Yankelevich 2009). Kharms' texts are candidates for triggering imaginative resistance because "Logical connections are thrown out…violence begets violence with neither motive nor authorial reprimand" (ibid). As an example, consider the story below, called *What they sell in the shops these days*:

> Koratygin came to see Tikakeyev but didn't find him in. At that time Tikakeyev was in the shop buying sugar, meat and cucumbers. Koratygin hung about by Tikakeyev's door and was just thinking of writing a note when he suddenly looked up and saw Tikakeyev himself coming, carrying in his arms an oilskin bag. Koratygin spotted Tikakeyev and shouted: - I've been waiting for you a whole hour! - That's not true - said Tikakeyev - I've only been out of the house for twenty-five minutes. - Well, I don't know about that - said Koratygin - except that I've already been here a whole hour. - Don't tell lies - said Tikakeyev - you should be ashamed to lie. - My dear fellow! - said Koratygin - Be so good as to be a little more particular with your expressions. - I think... - began Tikakeyev, but Koratygin interrupted him: - If you think... - he said, but at this point Tikakeyev interrupted Koratygin and said: - A fine one you are! These words put Koratygin into such a frenzy that he pressed a finger against one of his nostrils and through his other nostril blew snot at Tikakeyev. Then Tikakeyev took the biggest cucumber out of his bag and hit Koratygin on the head with it. Koratygin clutched his head with his hands, fell over and died. That's the size of the cucumbers sold in the shops these days![19]

This is a story in which a petty argument between two men ends with one man beating the other to death with a cucumber. As in (14), in this story the immoral statement comes in the final sentence, where the violent episode is endorsed by the narrator's choice to focus on the (size of the) cucumber rather than loss of human life. There is an important sense in which this is quite funny. But there is also a sense in which the story is tragic and immoral. And for some readers, this may be hard to except, thereby triggering imaginative resistance. For these readers, Narrator Accommodation is a possible 'coping' strategy, whereby the blame goes to an opinionated, unnamed fictional narrator who's telling the story. This interpretation is supported by the exclamative in the final sentence, which signals a first-person like, subjective experience.

Despite the possibility of Narrator Accommodation, one can argue that this is not what's intended by Kharms, who wants the reader to embrace the fact that the fictional world is not unlike ours. As noted above, absurd life, for Kharms, was real life; it is immoral at the very core. As noted by Cornwell (1993): "It is the environment in which he wrote, that is the most striking thing of all." Assuming Kharms intends for his readers to understand this environment, to blur the distincion between reality and fiction, then we would expect an informed reader to overcome their initial imaginative resistance by accepting the immoral reality at face value. Indeed, one may argue that to appreciate the power and genius of Kharms' work is, generally, to overcome one's initial imaginative resistance and accept the offending fiction as reality.[20]

4 Indirect Emotional Frustration

The frustrations described in Sects. 2 and 3 are local, or 'localizable', in the sense that they can be pinned to specific textual elements, such as Free Indirect Discourse, disambiguating content that triggers reanalysis, or parts of a text that reveal a character's unexpected moral framework. Indirect emotional frustrations, by contrast, are global in nature: by experiencing behavioral frustration over the course of reading, the reader comes to experience a general frustration related to global uncertainty about the meaning, or 'message', of the text.

In this section, we consider one example of an indirect emotional frustration. We call it 'mirrored frustration': when the processor's frustration mirrors that of a frustrated narrator. This frustration relates to a question "which has never really been directly addressed within the psycholinguistic realm [namely] whether readers need to actually feel emotions (i.e., by some kind of self-referential experience) to understand characters' emotional states" (Gygax and Gillioz

[19] http://www.sevaj.dk/kharms/stories/shops.htm, accessed on December 28, 2022.

[20] See Matravers (2023)'s discussion of the distinction between reading fiction and non-fiction which is directly relevant. He argues that the relevant contrast is between the content of the narrative and what is believed to be true in the actual world.

2015). Here, we consider a case in which the mirroring is derived from narrative garden path (recall Sect. 2.3). In particular, we will consider how a reader's frustrated experience of reanalyzing *Atonement* mirrors the narrator's own frustrated attempt at reanalyzing their past experience.

Recall that in *Atonement*, the protagonist Briony Tallis seeks atonement from the reader for her crime. She uses three ingredients to sway the verdict in her favor:

i. Begin by pretending that someone highly reliable is telling your story.
ii. Then invoke empathy from the audience for your actions by giving them hope.
iii. Finally, reveal to the audience that you're actually the narrator.

In Sect. 2.1 we saw how (i) is achieved through Free Indirect Discourse, which allows the reader to consider multiple perspectives and may trigger impatience. Parts Two and Three of the novel continue to employ Free Indirect Discourse, but they each only offer a single perspective, as it concerns the consequences of Briony Tallis's crime. Part Two is told through the Robby Turner's perspective; it describes his post-prison military duty, leading to a highly anticipated reunion with his love, Cecilia Tallis, who he hasn't seen in years. Part Three is told through Briony's perspective; it describes hospital work that serves as her self-punishment. As argued by Altshuler (2021), the transition from Part Two to Part Three is vital because it first gives us hope (Robby and Cecilia will be reunited) and then empathy (Briony realizes her wrongdoing). It also gives Briony the 'final word', preparing the reader for her revelation and adjudication.

The final part of the novel, entitled "London, 1999", opens with:

> What a strange time this has been. Today, on the morning of my seventy-seventh birthday, I decided to make one last visit to the Imperial War Museum library in Lambeth.

This is no longer Free Indirect Discourse. For the first time in the novel, indexicals refer to the context of the narrator, rather than the context of some character: 'today' refers to the day of the narrator, while 'my' and 'I' refer to the narrator. That means that the narrator is, in fact, a character in the fictional universe created by the author. Hence, the narrator cannot possibly be omniscient; the narrator cannot be 'God'!

As we quickly find out, Briony is really the narrator (and has been the narrator the whole time), and she has not been reliable. Robby died at Dunkirk, and Cecilia died in a metro explosion; the two were never reunited. For many readers, this revelation triggers unfulfilling surprise. John Mullan writes in the *Guardian*:

> Some readers have felt cheated by it, like viewers of Dallas who were suddenly shown by desperate scriptwriters that the traumatic events of many previous episodes were just Pam Ewing's "dream".[21]

While some readers may indeed feel cheated, it is important to note that the unfulfilling surprise is intentional. It provides an existential experience for the reader that mirrors younger Briony's frustrated attempts to make sense of the events leading to and following her crime. The impact of this mirroring goes beyond the behavioral and emotional impacts of the narrative garden path and resulting unfulfilling surprise. Because the resolution of the narrator's identity comes at the end, the reader is left uncertain about the import of the novel they have just read - what was the 'message' this story was intended to convey? What is conveyed emotionally is something Briony does not say directly ("I have struggled with this"). The reader is asked to reread and reconsider her story, her point of view, much like the older Briony had been doing over a lifetime. In this way, Briony may achieve atonement from the reader for her crime.

5 Conclusion

Our goal in this paper was to sketch the beginnings of a typology of narrative frustration, characterizing each class of frustrations by its source, and its behavioral or emotional effects on the reader's experience. While we are well aware that some of the frustrations we discuss have been investigated by researchers in fields like philosophy, psychology, and literary studies, we see our contribution as drawing these threads together in a unified framework.

	Behavioral	**Emotional**
Direct/local	impatience incoherence narrative garden path	empathetic guilt imaginative resistance
Indirect/global		mirrored frustration

We have argued for the current classification based on our analyses of illustrative texts and by hypothesizing ways in which these frustrations reflect behaviors and responses that are familiar from sentence- and discourse-level processing. What is called for in future work is experimental evidence to test and refine these hypotheses. In addition to the direct hypotheses we make in this paper, we can imagine likely

[21] https://www.theguardian.com/books/2003/mar/29/ianmcewan, accessed on December 30, 2022.

subsequent reading behaviors if our characterizations are accurate.

The most straightforward tests involve the behavioral frustrations, which should have measurable behavioral reflexes, such as reading slowdown where disambiguating information triggers a reanalysis, or where the lack of obvious coherence relations prompts additional reasoning about possible ways for sentences to be related. In terms of subsequent reading behavior, our current classification allows us to make predictions about the direction of eye movements in reading (regressive eye movements) to earlier parts of the text, forward movements, or looks to immediately preceding or following sentences.

How to measure emotional states has long been a subject of debate (Barrett 2006), and there is no single consensus method. However, a number of well-tested tools now exist, which would allow for readers' emotional responses to specific parts of a text to be measured (Zuckerman et al. 1965; Mayer and Gaschke 1988; Gross and Levenson 1993; Bradley and Lang 1994; Harmon-Jones 2016). Predictions about global emotional reactions to an entire narrative can be tested by a post-reading survey asking readers to e.g. rate characters on a range of attributes (e.g. trustworthy, friendly, violent), or indicate to what extent they resemble characters on those attributes. Where there are specific passages that are expected to trigger a direct emotional frustration (or prompt the reader to adopt a coping strategy), questions can be interleaved with parts of the text to assess readers' emotional responses to those passages.

An interesting question is whether behavioral frustrations can have emotional effects, and whether emotional frustrations incur behavioral costs. We saw instances of this in our examples. When narrative garden path resulted in unfulfilling surprise, we suggested that the behavioral cost of reanalysis would be accompanied by the emotional disappointment of an unsatisfying emotional resolution. In the case of imaginative resistance, while the trigger is moral conflict with a character, the strategies to resolve this moral conflict involve inserting additional perspectives into the narrative world (associated with the immoral character, or an implicit narrator). These are strategies that could incur processing costs, both because they involve reanalysis, and because they require maintaining a mental representation of multiple perspectives. These expectations are straightforwardly testable, using methods mentioned above.

Less obvious, in our view, is the nature of indirect emotional frustrations, and the ways in which local frustrations can accumulate to create global ones. We provide the example of mirrored frustration here, which we suggest is caused by repeated behavioral frustrations experienced throughout the reading of the text. Are there other ways in which local frustrations can cumulatively have a global effect—for instance, involving direct emotional frustrations, or resulting in different global emotional impacts on the reader? These questions, too, demand further empirical study with real readers.

Returning to the question of how narrative frustrations relate to imaginative experience, frustrations can be seen as complicating the process of creating a mental representation of the story world. While readers of non-fiction can rely on the text world more or less resembling the actual world, fiction presents readers with a much wider range of possibilities—from worlds that might as well be our world, to ones that differ in substantial ways. It is those gaps and differences that individual readers imaginatively fill in, and why the experience of reading fiction is so personal.

Acknowledgements Thanks to Kristina Liefke and Justin D'Ambrosio for inviting us to share our ideas about narrative frustration, and to two anonymous reviewers for their critical feedback. Parts of this paper were presented at the 'Semantics of Imagination Workshop' at ESSLLI 2022 and at a workshop on the occasion of Hans Kamp's 80th Birthday 'The Dynamics of Semantics: Past, present and future ways of thinking about meaning'. We thank the audiences for their helpful input. Thanks also to Peter Barber, Polina Barskova, Sigrid Beck, Barbara Bleiman, Patrick Bray, Jonathan Culpeper, Regine Eckardt, Bailey Fernandez, Fernanda Ferreira, Rachel Fraser, Dag Haug, Matt Husband, Andrew Kahn, Hans Kamp, Nina Kazanina, Ian Lyne, Emar Maier, Susanna Melkonian-Altshuler, Gerald Prince, Philomen Probert, Hannah Rohde, Andrea Thomson and Titus von der Malsburg for discussion at various stages of this project. Any errors are ours.

Declarations

Conflict of interest The authors do not have any conflict of interest.

References

Afantenos S, Asher N, Benamara F, Bras M, Fabre C, Ho-Dac L-M, Draoulec AL, Muller P, Pery-Woodley M-P, Prevot L, Rebeyrolle J, Tanguy L, Vergez-Couret M, Vieu L (2012) An empirical resource for discovering cognitive principles of discourse organisation: the ANNODIS corpus. In: Nicoletta C, Khalid C, Thierry D, Mehmet UD, Bente M, Joseph M, Asuncion M, Jan O, Stelios P (eds) Proceedings of the eighth international conference on language resources and evaluation (lREC'12). European Language Resources Association, Istanbul, pp 2727–3274

Altmann G, Steedman M (1988) Interaction with context during human sentence processing. Cognition 30(3):191–238. https://doi.org/10.1016/0010-0277(88)90020-0

Altshuler D (2021). A novelist's recipe for atonement. Emagazine 93. https://www.englishandmedia.co.uk/e-magazine
Altshuler D, Haug D (2017) The semantics of provisional, temporal anaphors and cataphors. Talk presented at Deutsche Gesellschaft für Sprachwissenschaft. Saarland University, Saarbrücken
Altshuler D, Maier E (2022) Coping with imaginative resistance. J Semant 39(3):523–549. https://doi.org/10.1093/jos/ffac007
Altshuler D, Truswell R (2022) The syntax-discourse interface. Extraction from coordinate structures. Oxford University Press, Oxford
Asher N (1993) Reference to abstract objects in discourse. Springer, Dordrecht
Asher N, Lascarides A (2003) Logics of conversation. Cambridge University Press, Cambridge
Asher N, Vieu L (2005) Subordinating and coordinating discourse relations. Lingua 115:591–610. https://doi.org/10.1016/j.lingua.2003.09.017
Banfield A. (1982). Unspeakable sentences: narration and representation in the language of fiction. Routledge & Kegan Paul Books, New York
Barrett LF (2006) Solving the emotion paradox: Categorization and the experience of emotion. Personal Soc Psychol Rev 10(1):20–46
Bates E, Dick F, Wulfec B (1999) Not so fast: domain-general factors can account for selective deficits in grammatical processing. Behav Brain Sci 22(1):96–97. https://doi.org/10.1017/S0140525X99241787
Beigel R, Feigenbaum J (1992) On being incoherent without being very hard. Comput Complex 2:1–17. https://doi.org/10.1007/BF01276436
Berliner T (2010) Hollywood incoherent: narration in seventies cinema. University of Texas Press, Austin
Black JE, Barnes JL (2017) Measuring the unimaginable: imaginative resistance to fiction and related constructs. Personal Individ Differ 111:71--79. https://doi.org/10.1016/j.paid.2017.01.055
Black JB, Turner TJ, Bower GH (1979) Point of view in narrative comprehension, memory, and production. J Verbal Learn Verbal Behav 18(2):187–198
Bradley MM, Lang PJ (1994) Measuring emotion: the self-assessment manikin and the semantic differential. J Behav Ther Exp Psychiatry 25(1):49–59
Bransford JD, Barclay JR, Franks JJ (1972) Sentence memory: A constructive versus interpretive approach. Cogn Psychol 3:193--2090
Bray P (2006) Lost in the fold: space and subjectivity in Gérard de Nerval's "Généalogie'' and Sylvie'. French Forum 3(2):67–90. https://doi.org/10.1353/frf.2007.0002
Brewer WF, Ohtsuka K (1988) Story structure, characterization, just world organization, and reader affect in American and Hungarian short stories. Poetics 23:395–415. https://doi.org/10.1016/0304-422X(88)90043-5
Brown WJ (2015) Examining four processes of audience involvement with media personae: transportation, parasocial interaction, identification, and worship. Commun Theory 25:259–283. https://doi.org/10.1111/comt.12053
Cai D, Zhang Y, Huang Y, Lam W, Dolan B (2021). Narrative incoherence detection. arXiv:2012.11157 [cs.CL] https://doi.org/10.48550/arXiv.2012.11157
Campbell D, Kidder W, D'Cruz J, Gaesser B (2021) Emotion in imaginative resistance. Philos Psychol 34:895–937. https://doi.org/10.1080/09515089.2021.1932786
Carroll N (1998). Art, narrative, and moral understanding. In: Aesthetics and ethics: Essays at the intersection. Cambridge University Press, Cambridge, pp 126–160. https://doi.org/10.1017/CBO9780511663888.005
Cohen J (2006) Audience identification with media characters. In: Bryant J, Vorderer P (eds) Psychology of entertainment. Erlbaum Associates, Mahwah, pp 183–198
Coplan A (2004). Empathic engagement with narrative fictions. J Aesth Art Crit 62(2):141-152.
Cornwell N (1993). Daniil Kharms: incidences. Serpent's Tail, London
Cumming S, Greenberg G, Kelly R (2017). Conventions of viewpoint coherence in film. Philos Imprint 17:1–29. http://hdl.handle.net/2027/spo.3521354.0017.001
Danhi JA (1983) First persons singular. A study of narrative incoherence in the novels of Samuel Beckett and Gertrude Stein: University of California, Berkeley, Ph.D. thesis
Dijkstraa K, Zwaana RA, Graesser AC, Maglianoc JP (1995) Character and reader emotions in literary texts. Poetics 23:139–157. https://doi.org/10.1016/0304-422X(94)00009-U
Doron E (1991) Point of view. In: Moore SK, Wyner AZ (eds) Semantics and Linguistic Theory, vol 1. Cornell University Press, pp 51–64. https://doi.org/10.3765/salt.v1i0.2997
Duran ND, Dale R, Kreuz RJ (2011) Listeners invest in an assumed other's perspective despite cognitive cost. Cognition 121(1):22–40
Eckardt R (2014). The semantics of free indirect speech. How texts let you read minds and eavesdrop. Brill, Leiden
Eco U (1994) Six walks in the fictional woods. Harvard University Press, Cambridge
Eco U (1999) Sylvie: ricordi del valois. G. Einaudi, Torino
Ferreira F, Clifton C (1986) The independence of syntactic processing. J Mem Lang 25(3):348–368
Fludernik M (2003) Scene shift, metalepsis, and the metaleptic mode. Style 37:382–400
Frazier L, Fodor JD (1978) The sausage machine: A new two-stage parsing model. Cognition 6(5):291–325. https://doi.org/10.1016/0010-0277(78)90002-1
Gendler TS (2000) The puzzle of imaginative resistance. J Philos 97(2):55–81. https://doi.org/10.2307/2678446
Genette G (1980). Narrative discourse. An essay in method. Cornell University Press, Ithaca
Gerrig RJ (1993) Experiencing narrative worlds: on the psychological activities of reading. Yale University Press, London
Gibson E (2000) The dependency locality theory: a distance-based theory of linguistic complexity. In: Marantz A, Miyashita Y, O'Neil W (eds) Image, language, brain: papers from the first mind articulation project symposium. MIT Press, Cambridge, pp 94–126
Graesser AC, Singer M, Trabasso T (1994) Constructing inferences during narrative comprehension. Psychol Rev 191:371–395
Green MC (2004) Transportation into narrative worlds: The role of prior knowledge and perceived realism. Discourse Process 38(2):247–266
Green MC (2021) Transportation into narrative worlds. In Frank LB, Falzone P (eds) Entertainment-education behind the scenes. Palgrave Macmillan, London. https://doi.org/10.1007/978-3-030-63614-2_6
Gregory R (1974) Concepts and mechanisms of perception. Duckworth, London
Gross JJ, Levenson RW (1993) Emotional suppression: Physiology, self-report, and expressive behavior. J Personal Soc Psychol 64(6):970–986
Grosz BJ, Sidner CL (1986) Attention, intention, and the structure of discourse. Comput Linguist 12:175–204
Grosz BJ, Joshi AK, Weinstein S (1995) Centering: A framework for modeling the local coherence of discourse. Comput Linguist 21:202–225
Guyotat P (2003). Eden Eden Eden. Creation Books, Powder Springs
Guyotat P (2009) Eden Eden Eden. Solar Books, Hauppauge
Gygax P, Gillioz C (2015) Emotion inferences during reading: going beyond the tip of the iceberg'. In: Inferences during reading. Cambridge University Press, Cambridge, pp 122–139. https://doi.org/10.1017/CBO9781107279186.007

Hale J (2001) A probabilistic earley parser as a psycholinguistic model. In: Proceedings of NAACL, vol 2, pp 159–1666. https://aclanthology.org/N01-1021.pdf
Harmon-Jones C, Bastian B, Harmon-Jones E (2016) The discrete emotions questionnaire: a new tool for measuring state self-reported emotions. PLoS ONE. https://doi.org/10.1371/journal.pone.0159915
Haug D (2014a) The anaphoric semantics of partial control. In: Todd S, Sarah D, Mia W (eds) Proceedings of semantics and linguistic theory, vol 24, pp 213–233. https://doi.org/10.3765/salt.v24i0.2409
Haug D (2014b) Partial dynamic semantics for anaphora: Compositionality without syntactic coindexation. J Semant 31(4):457–511. https://doi.org/10.1093/jos/fft008
Hobbs J (1979) Coherence and coreference. Cognit Sci 3:67–90
Hobbs J (1985). On the coherence and structure of discourse. Tech. Rep. CSLI–85–37 CSLI Stanford, CA
Hobbs J (1990) Literature and cognition. CSLI, Stanford, CA
Hobbs J , Violi P (1990) Structuring in Nerval's *Sylvie*. In: Literature and cognition. CLSI, pp 121–130
Hockett C (1973) Jokes. In: Hockett C (ed) View from language: Selected sssays. University of Georgia, Athens, pp 257–289
Hume D (1748/1999) An enquiry concerning human understanding. Oxford University Press, Oxford
Hunter J, Asher N, Lascarides A (2018) A formal semantics for situated conversation. Semant Pragmat. https://doi.org/10.3765/sp.11.10
Iampolski M (1998) Bespamiatsvo kak istok. Novoe Obozrenie
Jahn M (1999) Speak, friend, and enter: Garden paths, artificial intelligence, and cognitive narratology. In: Herman D (ed) Narratologies: New perspectives on narrative analysis. Ohio State Press, Columbus, pp 167–194
Jandt FE (2020) Culture's influence on perception. In: Jandt FE (ed) An introduction to intercultural communication: Identities in a global community, 10th edn. Sage, San Bernadino, pp 59–80
Jasinskaja K, Karagjosova E (2020) Rhetorical relations. In Daniel G, Lisa M, Cécile M, Hotze R, Zimmermann TE (eds) Companion to semantics. Wiley, New York. https://doi.org/10.1002/9781118788516.sem061
Jouen A-L, Cazin N, Hidot S, Madden-Lombardi C, Ventre-Dominey J, Dominey PF (2021) Common ERP responses to narrative incoherence in sentence and picture pair comprehension. Brain Cognit 153:1–10. https://doi.org/10.1016/j.bandc.2021.105775
Jurafsky D (1996) A probabilistic model of lexical and access and disambiguation. Cognit Sci 20:137–194
Kamp H (1981) A theory of truth and semantic representation. In: Groenendijk J, Janssen T, Stokhof M (eds) Formal methods in the study of language. Mathematisch Centrum, Amsterdam, pp 277–322
Karttunen L (1976) Discourse referents. In: McCawley J (ed) Syntax and semantics, vol 7. Academic Press, New York, pp 363–385
Keen S (2006) A theory of narrative empathy. Narrative 14:207–236
Keen S (2007) Empathy and the novel. Oxford University Press, Oxford
Kehler A (2002) Coherence, reference, and the theory of grammar. CSLI, Stanford
Kehler A (2019) Coherence relations. In: Truswell R (ed) The Oxford handbook of event structure. Oxford University Press, Oxford, pp 583–604
Kieran M (1995) Art, imagination, and the cultivation of morals. J Aesth Art Crit 54:337–351. https://doi.org/10.2307/431916
Kieran M (1997) Aesthetic value: Beauty, ugliness and incoherence. Philosophy 72:383–399. https://doi.org/10.1017/S0031819100057077
Kim H, Kneer M, Stuart MT (2018) The content-dependence of imaginative resistance. In: Cova F, Réhault S (eds) Advances in experimental philosophy of aesthetics. Bloomsbury, London, pp 194–224
Kintsch W (1988) The role of knowledge in discourse comprehension: a construction-integration model. Psychol Rev 95:163–182
Kneepkensa EWEM, Zwaan RA (1995) Emotions and literary text comprehension. Poetics 23:125–138. https://doi.org/10.1016/0304-422X(94)00021-W
Labov W (1972) Language in the inner city: studies in the black english vernacular. University of Pennsylvania Press, Philadelphia
Lasair SGDA (2008). A narratological approach to the Pentateuch Targums. University of Manchester, Ph.D. thesis
Leonard E (2021) Writers on writing; easy on the adverbs, exclamation points and especially hooptedoodle. Arts. The New York Times. https://tinyurl.com/4kcbuwpz. Accessed 1 Jan 2022
Levy R (2008) Expectation-based syntactic comprehension. Cognition 106:1126–1177. https://doi.org/10.1016/j.cognition.2007.05.006
Lewis D (1978) Truth in fiction. Am Philos Q 15(1):37–46
Liao S, Gendler TS (2016) The problem of imaginative resistance. In: Noël C, John G (eds) The Routledge companion to philosophy of literature. Routledge, New York, pp 405–418
Liao S, Strohminger N, Sripada CS (2014) Empirically investigating imaginative resistance. Br J Aesth 54(3):339–355
Longacre R (1983) The grammar of discourse. Plenum Press, New York
Lysaker P, Wickett A, Wilke N, Lysaker J (2003) Narrative incoherence in schizophrenia: The absent agent-protagonist and the collapse of internal dialogue. Am J Psychother 57:153–166. https://doi.org/10.1176/appi.psychotherapy.2003.57.2.153
MacDonald MC (1994) Probabilistic constraints and syntactic ambiguity resolution. Lang Cognit Process 9:157–201
Maier E (2015) Quotation and unquotation in free indirect discourse. Mind Lang 30:345–373. https://doi.org/10.1111/mila.12083
Mandler JM (1987) On the psychological reality of story structure. Discourse Process 10:1–29
Mann W, Thompson S (1986) Rhetorical structure theory: Description and construction of text structures. Information Sciences Institute, Nijmegen
Martha N (1985) 'Finely aware and richly responsible': Moral attention and the moral task of literature. J Philos 82:516–529. https://doi.org/10.2307/2026358
Matravers D (2023) Fiction and the actual world. In: Patrik E, Julia L (eds) The philosophy of fiction: imagination and cognition. Routledge, New York, pp 62–76. https://doi.org/10.4324/9781003139720-5
Mayer JD, Gaschke YN (1988) The experience and meta-experience of mood. J Personal Soc Psychol 55(1):102
Millis K (1995) Encoding discourse perspective during the reading of a literary text. Poetics 23(3):235–253
Moran R (1994) The expression of feeling in imagination. Philos Rev 103(1):75–106
Mullan J (2015) Atonement—revelations withheld. Emagazine 70. https://www.englishandmedia.co.uk/e-magazine
Muskens R (1996) Combining Montague semantics and discourse representations. Linguist & Philos 19:143–86
Naremore J (1988). Expressive coherence and performance within performance. In: Acting in the cinema. University of California Press, Berkeley, pp 68–82. https://doi.org/10.1525/9780520910669-005
O'Connor KP, Aardema F (2005) The imagination: cognitive, pre-cognitive, and meta-cognitive aspects. Conscious Cognit 14:233–256
Olsson EJ (2005) Pragmatism, doubt, and the role of incoherence. In: Olsson EJ (ed) Against coherence: Truth, probability, and justification. Oxford University Press, Oxford, pp 173–204. https://doi.org/10.1093/0199279993.003.0010
Pearlmutter NJ (1999) Problems with plausibility and alternatives to working memory. Behav Brain Sci 22(1):109. https://doi.org/10.1017/S0140525X99381784

Perrig W, Kintsch W (1985) Propositional and situational representations of text. J Mem Lang 24:503–518
Pierce S, Arora KS (2015) From impatience to empathy. Narra Inq Bioeth 5:19–20. https://doi.org/10.1353/nib.2015.0008
Proust M (1958) Contre sainte-beuve. Chatto & Windus, London
Raskin V (1983) Semantic mechanisms of humor. Reidel, Dordrecht
Robertson DA, Gernsbacher MA, Guidotti SJ, Robertson RRW, Irwin W, Mock BJ, Campana ME (2000) Functional neuroanatomy of the cognitive process of mapping during discourse comprehension. Psychol Sci 11(3):255–260. https://doi.org/10.1111/1467-9280.00251
Sanders T, Spooren W, Noordman L (1992) Toward a taxonomy of coherence relations. Discourse Process 15:1–35
Schacter DL, Addis DR (2007) The cognitive neuroscience of constructive memory: Remembering the past and imagining the future. Philos Trans R Soc Lond Ser B 362(1481):773–786
Schacter DL, Addis DR, Buckner RL (2007) Remembering the past to imagine the future: the prospective brain. Nat Rev Neurosci 8(9):657–661
Schippers M (2014) Incoherence and inconsistency. Rev Symbol Logic 7:511–528. https://doi.org/10.1017/S1755020314000203
Schlenker P (2004) Context of thought and context of utterance: a note on Free Indirect Discourse and the Historical Present. Mind Lang 19(3):279–304. https://doi.org/10.1111/j.1468-0017.2004.00259.x
Sharvit Y (2008) The puzzle of free indirect discourse. Linguist & Philos 31:353–395. https://doi.org/10.1007/s10988-008-9039-9
Simon C (1977) Triptych. John Calder Publishers Ltd, Montreuil
Smith E (2000) Incoherence and text comprehension: cognitive and computational models of inferential control. University of Birmingham, Ph.D. thesis
Smyth R (1994) Grammatical determinants of ambiguous pronoun resolution. J Psycholinguist Res 23:197–229
St. George M, Mannes S, Hoffman JE (1994) Global semantic expectancy and language comprehension. J Cognit Neurosci 6:70–83
Stojnić U, Altshuler D (2021) Formal properties of now revisited. Semant & Pragmat 14:1–44. https://doi.org/10.3765/sp.14.3
Tan ESH (1994) Story processing as an emotion episode. In: Naturalistic text processing, pp 165–188. Ablex
Todd CS (2009) Imaginability, morality, and fictional truth: Dissolving the puzzle of 'imaginative resistance'. Philos Stud 143(2):187–211
Toolan M (2013) Coherence. In: The living handbook of narratology. Hamburg University, Hamburg
Trueswell JC, Tanenhaus MK, Garnsey SM (1994) Semantic influences on parsing: Use of thematic role information in syntactic ambiguity resolution. J Mem Lang 33(3):285–318
Tuna E (2020) Imaginative resistance. In: Zalta ED (ed) The Stanford encyclopedia of philosophy, Metaphysics Research Lab, Stanford University summer 2020 edn. https://plato.stanford.edu/archives/sum2020/entries/imaginative-resistance/
Vanderveren E, Bogaerts A, Claes L, Luyckx K, Hermans D (2021) Narrative coherence of turning point memories: associations with psychological well-being, identity functioning, and personality disorder symptoms. Front Psychol. https://doi.org/10.3389/fpsyg.2021.623903
Virvidaki A (2014) Testing coherence in narrative film. University of Oxford, Ph.D. thesis. https://tinyurl.com/2vyk8tu6
Walton K (1994) Morals in fiction and fictional morality. Proc Aristot Soc 68:27–50
Witt JK, Proffitt DR (2007) Perceived slant: A dissociation between perception and action. Perception 36:249–257
Yankelevich M (2009) Today I wrote nothing: The selected writings. Ardis
Zuckerman M, Lubin B, Robins S (1965) Validation of the multiple affect adjective check list in clinical situations. J Consult Psychol 29(6):594
Zwaan RA, Dijkstra K, Graesser AC (1993) Components of understanding literary narrative. In: Presented at the third annual meeting of the society for text and discourse, Boulder, CO
Zwaan RA, Langston MC, Graesser AC (1995) The construction of situation models in narrative comprehension: An event indexing model. Psychol Sci 6:292–297