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Coping With Imaginative Resistance

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Abstract

We propose to characterize imaginative resistance as the failure or unwillingness of the reader to take a fictional description of a deviant reality at face value. The goal of the paper is to explore how readers deal with such a breakdown of the default Face Value interpretation strategy. We posit two distinct interpretative 'coping' strategies which help the reader engage with the resistance-inducing fiction by attributing the offending content to one of the fictional characters. We present novel empirical evidence that shows that actual readers use these strategies and we flesh out the exact workings of these strategies by integrating them into a general formal semantic framework for interpreting fiction.

1 IMAGINATIVE RESISTANCE

Consider the following mini-fiction:

(1) 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.

When we get to the final sentence our engagement with the fiction falters. Although we all grant the author the authority to decide that – in the fictional world they're creating – there's a girl who kills fish, it's apparently not up to the author to decide that this is a good thing to do (in that fictional world).

Some philosophers of art have sought to explain when and why the reader's imaginative engagement and/or the author's authority to create fictional truths of their choosing breaks down here – questions that have fallen under the rubric of *imaginative resistance* (Gendler, 2000).[1] Todd (2009) has argued instead for an eliminativist position: there is not a genuine

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1 David Hume's *Of the Standard of Taste* is often cited as the first discussion of this phenomenon. The contemporary debate was kicked off by Walton (1994) and Moran (1994). Gendler (2000) invented the now standard label, "the puzzle of imaginative resistance", defining it as "the puzzle of explaining our comparative difficulty in imagining fictional worlds that we take to be morally deviant" (*ibid*,56). There

phenomenon of imaginative resistance to explain because there is too much variation both in the interpretative factors that may prompt a reader to resist imagining, and in the readers' judgments about what is fictionally true.[2]

This paper adopts the position that imaginative resistance is merely the breakdown of a default interpretation strategy, which we call 'Face Value': every proposition expressed by the statements that make up the text should be assumed true in the relevant fiction.[3]

Applying Face Value to (1) amounts to taking the text as presenting us with a fictional world where killing the fish would, in fact, be the right thing to do in the circumstances described. Conceiving of such a fictional world tends to encounter some resistance. Philosophers and naïve experimental subjects alike report being unable and/or unwilling to accept such radically morally deviant fictional worlds (Kim *et al.*, 2018).[4] The Puzzle of Imaginative Resistance asks what the nature of this resistance is, and when and why it occurs. We won't attempt to solve this philosophical puzzle (or cluster of related puzzles, Weatherson, 2004). Instead we want to show that, whatever the reason for the resistance to Face Value, there are interpretative 'coping' strategies which help the reader overcome that initial resistance and properly engage with the story regardless.

The two coping strategies we explore in detail involve attributing the offending content (it was a good thing to kill the fish) to one of the fictional characters. 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.

The goal of this paper is to spell out how these strategies work, i.e., how do they affect the semantic interpretation of the text, and what textual and interpretive factors play a role in determining which strategy to pursue? To do so we integrate our strategies in a well-established general theory of discourse structure and interpretation: Segmented Discourse Representation Theory (SDRT, Asher & Lascarides, 2003). SDRT is a formal theory of interpretation that extends general dynamic semantics frameworks like Discourse

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     are a number of detailed and recent overviews of the state of the debate in philosophy, including Liao & Gendler (2016); Tuna (2020).

2   About the interpretative factors, Todd (2009, 203) writes: " . . . the relativity of imaginability to these factors is inevitably complex and messy and subject to degree and precludes any one right answer to what will be imaginable in any particular case". With respect to judgments of truth, Todd (2009, 189) writes: " . . . fictional truth is essentially interpretive in nature, and once this is recognised, it becomes evident that the alethic problem itself is a philosopher's fiction, and hence that the supposed puzzle of imaginative resistance as it has hitherto been discussed in the literature is not puzzling at all."

3   This assumption is otherwise known as the Principle of Authorial Authority (Badura & Berto, 2019; Gendler, 2006; Maier & Semeijn, 2021).

4   Kim *et al.* (2018) argue that there is nothing special about moral deviance – other kinds of 'weird' stories also give rise to imaginative resistance. In this paper we likewise look beyond moral deviance and consider the interpretation of stories featuring aesthetic, epistemic, logical and physical deviance.

Representation Theory (DRT, Kamp & Reyle, 1993) with a model of pragmatic enrichment through the inference of coherence relations (Hobbs, 1990).

With our implementation we take an important step towards countering Todd (2009)'s skepticism regarding the possibility of accounting for variability of reader responses to various types of 'deviant' stories. With our SDRT implementation we hope to show that it *is* possible to make precise the various factors that go into interpreting a seemingly problematic fiction like (1), and hence make significant progress towards explaining reader variability in responding to fiction generally.

The paper proceeds as follows. In §2 we exemplify and motivate our three hypothesized interpretation strategies in some detail, though in a theory-neutral way. Subsequently, in §3–§4, we flesh out the exact workings of these strategies by integrating them into a general SDRT framework for interpreting fictional stories. In §5, we summarize our contribution in this paper. We've included an appendix to discuss some preliminary empirical data we gathered to support our analysis.

2 THREE INTERPRETATION STRATEGIES

In this section we explore how readers interpret various types of stories that philosophers have devised to elicit imaginative resistance.

2.1 *The Face Value strategy*

As noted in the introduction, the default interpretation strategy for a piece of text presented as a fiction will be to take the text as an accurate description of a fictional world. But what happens when the text confronts us with a bizarre or seemingly impossible state of affairs? One reaction might be to embrace authorial authority, and decide that, no matter how strange, immoral, or logically impossible, the state of affairs in the fictional world under construction is as the text describes it.

Consider one of the most discussed examples in the literature, Weatherson's (2004) Death on the Freeway:

(2) **Death on the Freeway**
     Jack and Jill were arguing again. ... This was causing traffic to bank up a bit. It wasn't significantly worse than normally happened around Providence ... When Craig saw that the cause of the bankup had been Jack and Jill, he took his gun out of the glovebox and shot them. People then started driving over their bodies, and while the new speed hump caused some people to slow down a bit, mostly traffic returned to its normal speed. So Craig did the right thing, because Jack and Jill should have taken their argument somewhere else where they wouldn't get in anyone's way.

Readers have no trouble accepting that, in the fictional world of Death on the Freeway, Craig shot two people because they were arguing, i.e. we take the description of the shooting at Face Value. So, then, we might in principle do the same with the critical passage at the end, and just accept that, in that fictional world, that is the morally righteous thing to do.

Such a Face Value strategy in light of deviant story worlds has been suggested to be an appropriate and/or common reader response for resistance stories that purport to present a logical impossibility – like Priest's (1997) *Sylvan's Box*, whose crucial passage is quoted in (3) (see Story 3 in the Appendix for original version) (Badura & Berto, 2019; Matravers, 2014; Priest, 1997; Ryan, 1991; Walton, 1990).

(3) **The Box**
      ... At first, she thought it must be a trick of the light, but more careful inspection
      certified that it was no illusion. The box was absolutely empty, but also had something
      in it. Fixed to its base was a small figurine, carved of wood, Chinese influence, Southeast
      Asian maybe.

In the Appendix we report our own findings, confirming that some allegedly resistance-
inducing stories, including (3), are indeed happily interpreted Face Value, i.e., as describing
a world where it is true that, for instance, three is the sum of four and six.

2.2 *The Character Perspective strategy*

Embedding an immoral or illogical claim in a speech or attitude report should significantly
reduce the reader's resistance. It's perhaps unpleasant to imagine someone who is convinced
or claims that killing people or animals is the right thing to do, but it's by no means as
challenging as imagining a world where such killing is morally acceptable. After all, we
readily accept that some people – both real and fictional – may be delusional, psychotic,
mistaken, lying, or even plain evil. Thus, while (4a) may cause imaginative resistance, (4b)
and (4c) do not, as the latter two do not invite us to imagine a world where shooting people
who are annoying in traffic is acceptable practice.

(4) ... When Craig saw that the cause of the bankup had been Jack and Jill, he took his
      gun out of the glovebox and shot them. ... mostly traffic returned to its normal speed.
      a. So Craig did the right thing, because Jack and Jill should have taken their argument
          somewhere else where they wouldn't get in anyone's way.
      b. Craig thought that he did the right thing, because Jack and Jill should have taken
          their argument somewhere else where they wouldn't get in anyone's way
      c. "Hey buddy, you did the right thing" a passing motorist yelled out, "They should
          have taken their argument elsewhere!"

Now note that the category of report constructions is not exhausted by the canonical direct
and indirect discourse embeddings in (4). Especially in fictional narratives, we find much
more subtle types of perspective shifting that lead the reader to ascribe certain attitudes to a
specific character in the story without any overt embedding or quotation marks. By far the
best known of these hidden report constructions is called free indirect discourse (Banfield,
1982; Fludernik, 1993):

(5) Ashley was lying in bed freaking out. Tomorrow was her six year anniversary with
      Spencer and it had been the best six years of her life. What was she going to do?
      (Maier, 2015)

There is no (overt) quotation or embedding verbs of saying or thinking, yet we intuitively
read this passage as describing Ashley's thoughts. The question, for instance, does not signal
that the narrator or author is asking the reader what to do, but is clearly a question that
Ashley is asking herself. Similarly, *tomorrow* refers to Ashley's tomorrow, not the narrator's.
    The take-away from these examples is that free indirect discourse passages are reports
of what a character is saying or thinking rather than a narrator's descriptions of what

the (fictional) world is like.[5] Hence, cases of apparent contradiction and deviant morality occurring in free indirect discourse should not give rise to sustained imaginative resistance, just as deviant moral judgments expressed inside direct or indirect reports do not give rise to resistance.

Of course, for a reader to apply this Character Perspective strategy, they have to first recognize the subtle grammatical markings of free indirect discourse as such – a notoriously difficult skill which leaves a lot of room for different interpretations, even for experienced literary critics. Empirical studies on free indirect discourse find that even seemingly clearly marked perspective shifts are not always recognized by unskilled participants (Maier *et al.*, 2015; Salem *et al.*, 2017).

Interestingly, Yablo's (2002) oft-cited example below has been discussed in the philosophical literature as a case of imaginative resistance and yet it shows many clear signs of free indirect discourse.

(6) **Treasure Hunt**
They flopped down beneath the giant maple. One more item to find, and yet the game seemed lost. Hang on, Sally said. It's staring us in the face. This is a maple tree we're under. She grabbed a five-fingered leaf. <u>Here was the oval they needed!</u> They ran off to claim their prize.

The exclamation mark and the indexical *here* clearly express the excitement and location of the protagonist rather than the narrator, while the past tense (*was, needed*) and third person pronoun (*they*) by contrast reflect the (impersonal) narrator's third person perspective. The truth conditions of the crucial passage then can be quite accurately paraphrased as a direct or indirect speech report:[6]

(7) a. "Here is the oval we need!", she told them.
    b. She told them that the oval they needed was right there.

Reading (6) as a free indirect discourse and thus as a report, roughly equivalent to something like (7), would be a rather effective strategy for the reader to cope with their initial resistance. Although a quick first glance might suggest a story world where a five-fingered maple leaf *is* an oval, a proper recognition of the markings of free indirect style will reveal that we're instead dealing with a perfectly consistent story world where a (confused, deceptive, or delusional) protagonist picks up a five-fingered leaf and *calls it* an oval.

The Box, in (3), is likewise compatible with a free indirect discourse reading (of the underlined passage):

(8) At first, she thought it must be a trick of the light, but more careful inspection certified that it was no illusion. <u>The box was absolutely empty, but also had something in it.</u>

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5 Note that this take-away does not discriminate between the view that free indirect discourse is more like indirect discourse (Sharvit, 2008) vs. the view that it's more like direct discourse (Maier, 2015).

6 Paraphrasing it in indirect speech is less straightforward than in direct speech and inevitably some of the nuances get lost, but something like (7b) comes close. As for (7a), it is worth pointing out that Yablo's prose seems to suppress quotation marks in what is unambiguously direct discourse in the remainder of the passage.

Although no unambiguous syntactic markers of free indirect discourse are present in the target sentence, the explicit attitude ascription in the previous sentence ("she thought it must be a trick of the light") sets up a perfect context for subsequent free indirect thought reporting.

The same cannot be said of Death on the Freeway. The use of the proper name *Craig* in (4a) makes it hard to interpret the offending statement from Craig's perspective, and the other protagonists (Jack and Jill) are dead. As we proceed to show in the next subsection, there is yet another strategy that readers can follow to cope with an initial imaginative resistance in cases like this.

In the Appendix we show data confirming, for instance, the intuition that Treasure Hunt and, to a lesser extent, The Box give rise to Character Perspective readings, as many participants judged that it was Sally's opinion that the maple leaf is an oval.

2.3 *The Narrator Accommodation strategy*

It is generally assumed that readers experience much less or no resistance if a story is told by a first person narrator than by an impersonal one, because in such stories we can just attribute the immoral view or the confusion to them, or we may even think they are lying (Weatherson, 2004). In narratological terms, readers can simply assume that the narrator is 'unreliable' instead of accepting that the fictional world itself is morally or metaphysically deviant (Booth, 1961; Margolin, 2012). But what if there is no first person narrator?

There's a long standing debate about whether or not all fictional texts have a narrator, be it an explicit first person character, or a more abstract, impersonal point of view. The standard argument for what Köppe & Stühring (2011) call the 'pan-narrator hypothesis' builds on speech act theory. An assertion comes with a commitment on the part of the asserter that they are telling what they know (or believe, or consider, or accept) to be true. But the author of fiction is not committed to the truth of the fictional assertion – Tolkien surely knew there are no talking dragons or magic rings. So if we want to maintain that a fictional text consists of fictional assertions (or assertion-like speech acts) we have to postulate some other, more committed 'speaker' who lives in the fictional world, knows what's happening and relays that to us by asserting what they know to be true (Currie, 1990; Genette, 1980; Lewis, 1978; Margolin, 2012; Ryan, 1991). Arguments for the alternative 'optional-narrator hypothesis' range from example stories about worlds without narration-capable beings (Byrne, 1993) to the occurrence of 'unspeakable sentences' in modern literature (Banfield, 1982).

We adopt the following ecumenical view regarding narrators: in impersonal narration, as opposed to first-personal narration, there is no *personal* narrator, i.e., no explicitly or implicitly introduced *character* that we can pinpoint as the one responsible for the speech acts making up the fictional text, and hence no specific fictional individual that we can judge to be ironic, lying, confused, immoral, etc. We'll make this idea formally precise in §3.3, with the help of the notion of a 'discourse referent' from dynamic semantics.

Whether a story has some implicit narrator built in by definition or no narrator at all, in the right context, with the right linguistic trigger, a charitable interpreter can *accommodate* an explicit narrator, i.e., revise their initial interpretation by including an explicit representation (a discourse referent) of a certain character as a first person narrator (Lewis, 1979). From a processing perspective, we might say that narrator accommodation occurs in *every* reading of a (not yet familiar) first-person narrative. In our initial reading of a new story, we wouldn't assume that any specific fictional character is the narrator until we

encounter, say, a first-person pronoun or perhaps another indexical. Take the opening lines of *Wide Sargasso Sea*:

(9)   They say when trouble comes close ranks, and so the white people did. But we were not in their ranks. The Jamaican ladies had never approved of my mother, 'because she pretty like pretty self' Christophine said. (Jean Rhys, *Wide Sargasso Sea*, 1966.)

The first sentence is arguably compatible with a narratorless or impersonal mode of story-telling. The first clear reference to a narrator is the occurrence of *we* in the second sentence. To interpret that first-person pronoun we have to accommodate the existence of a fictional character – as yet unnamed – that is telling us all this.[7]

We will formalize the process of 'narrator accommodation' more precisely in §3.3 in terms of discourse referents and presupposition resolution in DRT. For now, we only note that there are many possible triggers of narrator accommodation: many indexical, perspectival, and speaker-oriented expressions, constructions and speech act types that seem to linguistically presuppose a first-person speaker/narrator parameter. The extent and definitions of perspective-dependence is a hotly debated topic but it ranges from local and temporal indexicals, to epistemic modals, pejoratives, questions, imperatives, honorifics, discourse particles and exclamatives (Anderson, 2020; Bylinina *et al.*, 2014; Eckardt, 2021). Arguably, occurrences of such perspectival constructions in an otherwise seemingly impersonal narrative could force the reader to accommodate a first-personal narrator to serve as perspective anchor.

We propose that narrator accommodation is also a common and effective strategy for coping with imaginative resistance, as the switch to first-person narration allows the reader to ascribe the deviant judgment to a deviant narrator instead of taking it at face value as a property of a fundamentally deviant fictional universe (as discussed in §2.1). Our proposal is, in part, based on inspection of familiar imaginative resistance stories discussed in the philosophical literature, where we find perspectival terms in their critical sentences. First of all, there are the explicitly moral terms (*good* in Fish Tank, *right* in Death on the Freeway) and aesthetic evaluatives (like *beautiful* in (10), or consider *funny* in Walton (1994) hypothetical story that describes a knock-knock joke told for the billionth time as hilariously funny). Here is a recent example considered by Kim *et al.* (2018), where the final sentence is clearly perspectival:

(10)   **Yellow**
Adaleine, Picasso's greatest student, was a prolific painter, whose work was unfortu-nately lost to history - with the exception of her last painting: A 3 x 4' canvas, painted from edge to edge in the exact same shade of yellow as the McDonald's golden arches. It is without doubt one of the most beautiful works ever made.

Now, to what extent the underlying ethical and aesthetic concepts are really subjective is a matter of ethics and aesthetics, respectively, but it seems plausible that (some) uses of such terms semantically presuppose a 'perspective holder' or 'judge' (McNally & Stojanovic,

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7   Note that, while many novels reveal the presence of a narrator in their opening lines, the first person trigger could in principle occur much later. Konstantin Vaginov's *Goat Song* involves impersonal narration until Chapter 3, which opens (and continues) in the first person: "I'm sitting at the place of my friend, a famous artist." In any case, a first occurrence of a first-person pronoun in a text will always require accommodation of a speaker/narrator discourse referent.

2014), which has to be a salient, sentient person rather than an abstract, impersonal omniscient viewpoint. In some cases, one of the salient, non-narrating fictional characters may serve as the relevant judge for the perspectival term in question. In other cases we might take the perspectival element as a cue for a free indirect discourse interpretation (as discussed in §2.2). Both of these strategies lead to an interpretation where the evaluation is attributed to one of the salient characters, and hence fall under the Character Perspective strategy. An alternative for the interpretation of such judge-dependent expressions in impersonal narratives is to simply accommodate a first-person narrator to be the judge. This is what we call the 'Narrator Accommodation' strategy.

The toy analysis just sketched out also holds for more subtly perspectival cues like epistemic modals (*maybe* in The Box, (3)) or causal/evidential connectives like (*so*, *therefore* in Death on the Freeway (2)). In other words, we expect that all perspective-sensitive elements could play a role in triggering either a Character Perspective interpretation (Abrusán, 2021) or a Narrator Accommodation interpretation (Eckardt, 2021).

In cases where there is no lexical trigger, we expect that a more free pragmatic enrichment (Pagin, 2014; Recanati, 2010) could also lead the reader to accommodate a personal narrator. Perhaps the mere difficulty of imagining a world where a box is full and empty at the same time could already lead the reader to accommodate that there is in fact a confused or deliberately misleading fictional character here that is telling us all this.

Regardless of whether the Narrator Accommodation strategy is triggered lexically or pragmatically, we hypothesize that it can be an effective way to cope with imaginative resistance, i.e. a way to avoid the Face Value strategy, where the fictional world really is fundamentally deviant, by shifting to a reinterpretation where the story (or the relevant part) is presented as filtered through the perspective of a specific narrator who is confused about the reality of the fictional world they inhabit.

In the Appendix we present our own survey data confirming that for instance in Fish Tank and Death on the Freeway, respondents consider it to be the fictional narrator's opinion that killing the fish or shooting Jack and Jill was the right thing to do.

3 A FRAMEWORK FOR INTERPRETING FICTION

In the following sections, we propose a uniform SDRT implementation of the main coping mechanisms we hypothesized above. We choose this framework in particular because, to the best of our knowledge, it is the only formally explicit theory of discourse coherence and discourse structure that would allow us to integrate the underlying fiction interpretation strategies and make any predictions about what might trigger what strategy, and what kind of truth-conditional impacts and processing costs are associated with each available interpretation option.

We start in this section by showing how fiction could be interpreted in DRT, a general representational framework for analyzing discourse meaning beyond the individual sentence level. Then we add some basic tools from SDRT, an extension of DRT that takes discourse coherence as a guiding principle of interpretation.

3.1 *Introducing DRT*

Let's take a standard version of DRT (Kamp, 1981) as our starting point. According to this theory, interpreting a discourse, spoken or written, involves the interpreter updating an

information state, represented in the formal language of Discourse Representation Structures (DRS).

We'll use a standard box notation for DRSs. By way of illustration, the box in (11b) is meant to represent the information conveyed by (11a):

(11) a. Farmer Sam owns a donkey.

b.
x y
farmer(x) donkey(y)
sam(x) own(x,y)

The top compartment (universe) houses the discourse referents, which can be thought of as existentially quantified variables of first-order logic, representing, roughly, the entities that the discourse is about. The bottom compartment contains descriptive conditions, expressing properties of, and relations between, discourse referents. The DRS language comes with a modeltheoretic semantics that says that, for instance, (11) is true iff there is an assignment function that maps discourse referents to individuals in the domain of the model such that the descriptive conditions are satisfied.

The dynamic nature of DRT resides in the way utterances in a discourse are interpreted as successive updates on the discourse representation. To illustrate, let's assume that the sentence in (11) continues with (12):

(12) It is happy.

The *DRS construction algorithm* has to add the information of the new sentence to the input DRS in (11). One of the key characteristics of the algorithm is that pronouns, definite descriptions and (other) presupposition triggers are treated as *anaphors*: they introduce free variables that search for antecedents to bind to (indicated by question marks) (Heim, 1982; Kamp, 1981). Anaphoric discourse referents are resolved by unifying them with prominent previously introduced discourse referent.

(13)
x y
farmer(x) donkey(y)
sam(x) own(x,y)
happy(?)

$\rightsquigarrow$

x y
farmer(x) donkey(y)
sam(x) own(x,y)
happy(y)

3.2 The fiction operator

To model the interpretation of fictional discourse, we represent the information we get from engaging with a work of fiction inside a dedicated 'fiction box', i.e. a subDRS embedded under a fiction operator FIC.

(14)
x   y
author(x) book(y)
tolkien(x) wrote(x,y)
lordoftherings(y)
FIC_y <table><tr><td>u v</td></tr><tr><td>frodo(u) sam(v)</td></tr><tr><td>friends(u,v)</td></tr></table>

The operator FIC here means that the DRS that follows is interpreted as describing the fictional universe created by the work y. Following Lewis (1978), we can modeltheoretically interpret FIC as a modal operator:

(15) $[\![\text{FIC}_x\varphi]\!]^{w,f} = 1$ iff for all w' compatible with fictional work $f(x)$, $[\![\varphi]\!]^{w',f} = 1$

We don't want to take a stance on the difficult semantic question of what exactly it should mean for a possible world to be compatible with a fictional work. Instead we focus on the 'dynamic question' of fiction interpretation: how does engaging with a work of fiction, as opposed to engaging with non-fiction discourse, affect the discourse context as represented by a DRS? Our answer is that while non-fiction interpretation amounts to updates on the global DRS, fiction interpretation amounts to identifying a discourse referent representing the work in question, adding the corresponding FIC operator, and updating the DRS embedded under that box.[8]
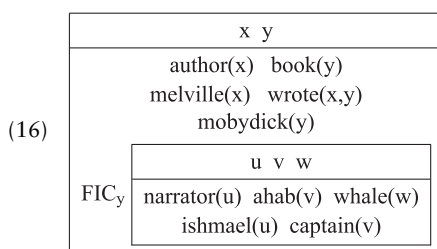
3.3 *The narrator*

Within this general framework we can give a precise account of the distinction between the two basic kinds of narration discussed in §2.3: impersonal and first-personal narration. Recall, in impersonal (or third-person omniscient) narration, the narrator is a more or less omniscient, non-intrusive purely abstract entity surveying the events occurring in the story world, including the protagonists' innermost thoughts and feelings, and presenting them to the reader. In first-personal (or homodiegetic) narration, by contrast, the narrator is herself one of the protagonists in the story, and hence does not always have full access to what other characters are thinking or doing behind her back.

   We model this distinction in terms of the presence or absence of a discourse referent representing the narrator. Impersonal narrations are those that do not give rise to a discourse referent for a narrator. Take (14), based on a typical reading of *The Lord of the Rings* as an impersonal narrative.[9] In a fuller DRS representation of the whole book there will be discourse referents for many fictional characters and events but none of them are singled out as the narrating *I*, the first person source of the speech act that constitutes the text as a whole. Instead, the information expressed by the fictional text gets processed and added to the fiction-box without the mediation of a narrating speaker.

   A first-personal narration, we propose, is one whose interpretation gives rise to a discourse referent for a fictional narrating *I*. Consider the DRS below, in (16), representing a reading of the prototypical first-person narrative *Moby Dick*, which famously opens with 'Call me Ishmael':

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8   See Lewis (1978) for a classic answer to the semantic question, and see Maier (2017), Maier & Semeijn (2021) and Semeijn (2021) for alternative ways of addressing the dynamic question within a DRT framework.

9   We'll ignore the prologue in which Tolkien inserts himself into the narrative as someone who has come into possession of an old manuscript.

(16)

x y
author(x)   book(y) melville(x)   wrote(x,y) mobydick(y)

FIC$_y$

u v w
narrator(u) ahab(v) whale(w) ishmael(u) captain(v)

We use the condition 'narrator(u)' to indicate that u is the narrating source or speaker of the speech acts being interpreted, i.e. the fictional *I* that is supposedly telling us the whole story. Any first person pronoun occurring anywhere[10] in the narrative will necessarily pick out this unique narrator discourse referent – just like a first person pronoun outside a fictional narrative will always pick out the discourse referent designated as representing the actual speaker of the current speech act.[11]

One common way of addressing the metaphysical question behind the semantics of the fiction operator (What does it mean for a world to be compatible with a fictional work?) is to build in the existence of a narrator. In Lewis's own formulation, for instance, for a world w' to be compatible with a fictional work t requires that t is told in w' (but "as known fact rather than than fiction"). Hence, all fictional worlds by definition contain a fictional narrator asserting the text. In our dynamic semantic setting however, note that the logically necessary existence of a narrator in a world doesn't entail that the text gives rise to an actual discourse referent for this narrator. We can compare this situation to 'Partee's marble':

(17)   Nine out of the ten marbles are in the bag. # It is under the sofa. (approximately cited by Heim (1982, 21))

Logically speaking, it follows from the first sentence that there is a unique missing marble, yet it is not introduced into the discourse record explicitly, which explains why the unique missing marble is not available as antecedent for the subsequent pronoun 'it'.

It has been observed about the marble case that with some small tweaks hearers readily *accommodate* a discourse referent for the missing marble, for instance if we add some descriptive content to the context or to the anaphoric element (Roberts, 1989).

(18)   Nine out of the ten marbles are in the bag.
    a.   I've been looking for hours but … oh wait, maybe it's under the sofa.
    b.   The missing marble/the red one/the bloody thing is under the sofa.

The analogue of this in the domain of fiction is what we called narrator accommodation above. A fiction may start off as an impersonal narration, i.e., without a dedicated narrator discourse referent in the fiction box. If at some point in the text we encounter an *I* or some other indexical or perspectival element that needs to be anchored to a 'speaker', we can accommodate a narrator discourse referent. Note that we thereby then effectively switch from impersonal to first-personal narration.

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10   We're putting aside local context shifting due to direct quotation or monstrous operators (Schlenker, 2003).

11   See Bittner (2007) and Hunter (2013) for ways of incorporating Kaplanian rigidity intuitions into a dynamic semantic framework where indexicals are treated as essentially anaphoric pronouns.

In sum, building on the Partee marble analogy we've arrived at a way to reconcile pan-narrator arguments (every fiction world must contain a narrator) with optional-narrator intuitions (impersonal narrations do not give rise to the introduction of a narrator discourse referent). Importantly, narrator discourse referents (like missing marble discourse referents) can be accommodated, thereby causing a switch from impersonal to first-person narration.

3.4 *Coherence relations in SDRT*

So far, we've considered discourses where anaphora resolution was predictable given the associated semantic features of the pronouns. However, we know from psycholinguistic research that things are much more complex. Consider the following discourse from Smyth (1994):

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

One can understand (19) as describing two events that happened to Stanley: Phil played with poor Stanley by tickling him, while Liz played with Stanley by poking him. In this reading the two sentences form a coherent discourse through the inference of a discourse or coherence relation called Parallel. A truth-conditionally distinct interpretation is also available. (19b) can describe what happened as a *result* of the event described by (19a): Phil's tickling Stanley resulted in Liz playing hero and poking Phil so that he would stop. This reading involves the inference of a coherence relation called Result. Crucially, the choice of discourse relation doesn't just add implicit, truth-conditional information about the temporal, causal or other relationships connecting eventualities, it also affects the structure of the discourse, thereby affecting for instance pronoun and presupposition resolution.
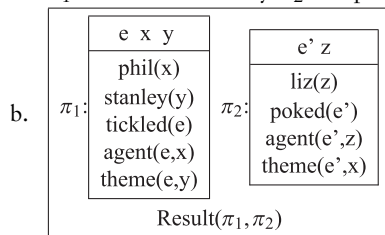
The term 'coherence relation' goes back to pioneering research in AI by Hobbs (1985, 1990, 1979), who used it to define discourse coherence: a discourse is coherent if and only if the units that make up the discourse are related by one or more coherence relations. Examples of coherence relations include Result, Explanation, Narration, Background, Parallel, Contrast and Elaboration.[12]

In the remainder of this subsection, we will outline some formal tools we will need to model the role that discourse coherence plays in coping with imaginative resistance. To that end we introduce SDRT, an extension of our DRT framework with a formal theory of coherence relations (Asher & Lascarides, 2003).

In SDRT, the interpretation of a discourse yields an SDRS. Unlike in classic DRT, where we dynamically update a single DRS box, each elementary discourse unit gives rise to its own separate, labeled DRS box. SDRT provides an formal system to constrain the inference of various coherence relations between these elementary discourse units (see Asher & Lascarides, 2003, for details). For instance, the Result reading of the discourse about Phil and Stanley would be represented as in (20). Note that from here on we'll be using a standard (Neo-)Davidsonian event semantics where verbs introduce eventualities (events or states) into the DRS:

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12 For recent overviews of coherence relations, see Jasinskaja & Karagjosova (2019), Altshuler & Truswell (2022, Ch.5-6).

(20) a. π_1: Phil tickled Stanley. π_2: Liz poked him.

b. π_1:
$$\begin{array}{|c|}\hline e\ x\ y \\ \hline phil(x) \\ stanley(y) \\ tickled(e) \\ agent(e,x) \\ theme(e,y) \\ \hline \end{array}$$
  π_2:
$$\begin{array}{|c|}\hline e'\ z \\ \hline liz(z) \\ poked(e') \\ agent(e',z) \\ theme(e',x) \\ \hline \end{array}$$

$$\text{Result}(\pi_1, \pi_2)$$

The model-theoretic interpretation of SDRSs is guided by the semantic interpretation of the coherence relations. The interpretation rule for a veridical relation like Narration or Result tells us to update the common ground with the contents of the DRS boxes associated with both discourse units, in addition to the relational information specific to the coherence relation in question – in this case, that the event introduced by the first relatum is the cause of the event introduced by the second.[13] We'll use some standard abbreviations like K_{π_1} for the DRS box labeled with π_1, e_{π_1} for the main eventuality introduced in the universe of the DRS box labeled with π_1, and $\oplus$ for the merging of DRS boxes (formally: the universe of $K \oplus K'$ is the union of the universes of K and K', and its condition set is the union of the two condition sets, note also that we suppress empty universes in our box notations). DRS boxes are semantically interpreted relative to a possible world index w and a variable assignment f.

(21) $[\![\text{Result }(\pi_1, \pi_2)]\!]^{w,f} = \Big[\!\Big[K_{\pi_1} \oplus K_{\pi_2} \oplus \boxed{\text{cause}(e_{\pi_1}, e_{\pi_2})} \Big]\!\Big]^{w,f}$

Result, as defined in (21) is a veridical coherence relation, because an occurrence of Result(π_1, π_2) commits us to evaluating both K_{π_1} and K_{π_2} as updates on the context in which the relation occurs.
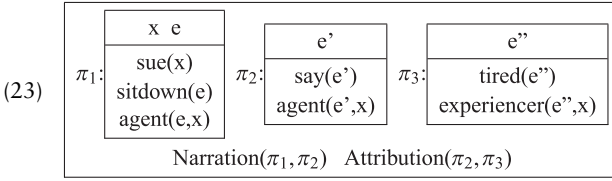
3.5 Attribution

To model the Character Perspective and Narrator Accommodation strategies as possible coping mechanisms for readers struggling with imaginative resistance, we first need a general account of reported speech and thought in terms of a non-veridical discourse relation called Attribution (Cumming, 2021; Hunter, 2016; Maier, 2021).

Our starting point is the idea that a regular indirect discourse report construction ("She said she was tired" in (22a)) should be decomposed into two separate discourse units ("She said something") and ("She was tired"), as shown in (22b):

(22) a.   Sue sat down. She said she was tired
    b. π_1: Sue sat down. π_2: She said π_3: she was tired

With this segmentation the standard SDRT Glue Logic axioms will allow us to connect the speech segment (π_2) to the sitting segment (π_1) by Narration. We'll assume that grammatical indirect discourse constructions encode that Attribution holds between the speech segment (π_2) and the complement segment (π_3).

---

13   For more discussion of Result, see Altshuler (2016, Ch.3).

(23)

	x e
	sue(x)
	sitdown(e)
	agent(e,x)

π_1:

	e'
	say(e')
	agent(e',x)

π_2:

	e''
	tired(e'')
	experiencer(e'',x)

π_3:

Narration(π_1, π_2) Attribution(π_2, π_3)

The semantic effect of Narration is that the second event is interpreted as immediately following the first (cf. Partee, 1984, time 'just after'). As illustrated in (24a), SDRT states this relation in terms of enablement: the post-state of the first event is the pre-state of the second event (Hobbs, 1985; Asher & Lascarides, 2003; Altshuler, 2016, Ch.3). The semantic effect of Attribution is that the second segment specifies the propositional content of the speech event introduced in the first.[14] This is illustrated in (24b), where we employ a Montagovian notation convention: $^\wedge K$ refers to the possible worlds proposition expressed by K ($[\![^\wedge K]\!]^{w,f} = \lambda w. [\![K]\!]^{w,f}$).

(24) a. $[\![\text{Narration } (\pi_1, \pi_2)]\!]^{w,f} = \left[\!\!\left[K_{\pi_1} \oplus K_{\pi_2} \oplus \boxed{\text{post}(e_{\pi_1}) \approx \text{pre}(e_{\pi_2})} \right]\!\!\right]^{w,f}$

b. $[\![\text{Attribution } (\pi_2, \pi_3)]\!]^{w,f} = \left[\!\!\left[K_{\pi_2} \oplus \boxed{\text{content}(e_{\pi_2}) \subset^\wedge K_{\pi_3}} \right]\!\!\right]^{w,f}$

Using SDRT terminology, we say that Narration is veridical, while Attribution is non-veridical: unlike Narration(π_2, π_3), the truth of Attribution(π_2, π_3) does not require the truth of both relata.

In effect we've now moved the analysis of reporting out of the syntax–semantics interface and into the realm of discourse pragmatics. In the case of indirect discourse this is mostly a matter of terminology, as we allow the syntax to inform the SDRS construction directly, i.e. by enforcing Attribution when parsing a grammatical report construction. However, the choice of modeling indirect discourse via Attribution as a discourse relation also allows us to capture reports that are not grammatically marked as such by an overt clausal embedding construction. This includes, for instance, unembedded report continuations, slifted parenthetical reports, free (i.e. unmarked) quotations, and free indirect discourse (Maier, 2021). We return to the latter below in our reconstruction of the Character Perspective strategy.

4 COPING WITH IMAGINATIVE RESISTANCE IN SDRT

Let's combine the theoretical ingredients from the previous sections, the DRT account of fiction and narration and the SDRT account of inferring coherence and attributions, into a more powerful framework for studying the interpretation of stories. In the following we illustrate our framework by formally analyzing in some detail three stories exemplifying our three strategies.

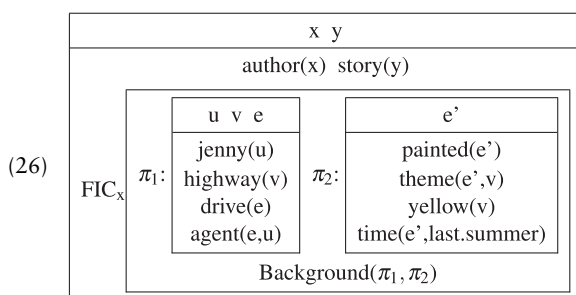### 4.1 Face Value interpretation in Interstate

Let's illustrate how our framework captures the basic Face Value interpretation by considering the following story, from Kim *et al.* (2018):

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14 Here, we are borrowing from event-based semantic approaches to reporting (e.g., Kratzer, 2006; Hacquard, 2010).

(25) **Interstate**
    Jenny was driving along Interstate 95, ... Last summer, this highway was painted solid yellow and superimposed with intricate black flower patterns for its entire 2000-mile length.

We use regular DRT boxes to represent the general common ground information relevant to the interpretation of this piece of fiction, e.g. that there's an author who wrote a short story called 'Interstate'. The interpretation of the actual linguistically structured story takes place inside a fiction-box, and is modeled in the more fine-grained framework of SDRT. For clarity we represent just the bare bones of the story: there's an event of Jenny driving on the highway, and there's a state of the highway being painted yellow with floral patterns. We'll assume that the state described in the second discourse unit forms the background for the action described in the first. Thus, the overall structure should come out something like this:

(26)

$$\text{FIC}_x \begin{array}{|c|}\hline x \ \ y \\ \hline \text{author}(x) \ \ \text{story}(y) \\ \hline \pi_1: \begin{array}{|c|} \hline u \ \ v \ \ e \\ \hline \text{jenny}(u) \\ \text{highway}(v) \\ \text{drive}(e) \\ \text{agent}(e,u) \\ \hline \end{array} \quad \pi_2: \begin{array}{|c|} \hline e' \\ \hline \text{painted}(e') \\ \text{theme}(e',v) \\ \text{yellow}(v) \\ \text{time}(e',\text{last.summer}) \\ \hline \end{array} \\ \hline \text{Background}(\pi_1, \pi_2) \\ \hline \end{array}$$

Since Background, like Narration and Result, is a veridical relation, this representation entails that it holds within the fiction box that the highway is indeed painted yellow – in other words, the reader is taking the story at Face Value.[15] In the Appendix we show that naïve readers in our survey indeed overwhelmingly accept it as true in the story that the entire highway was painted yellow.
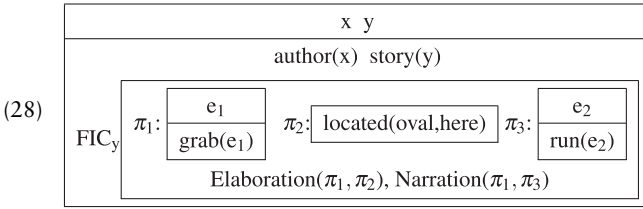
4.2 Character Perspective in Treasure Hunt

In §2.2 we discussed Yablo's (2002) Treasure Hunt as our prime example of a story triggering the Character Perspective strategy. Let's see what happens when we model the interpretation of this story in SDRT, focusing on the last three lines, straightforwardly segmented as follows:

(27) ... π_1: She grabbed a five-fingered leaf. π_2: Here was the oval they needed! π_3: They ran off to claim their prize.

As illustrated below, a Face Value interpretation arises if we connect π_2 directly to π_1 with the veridical relation, Elaboration(π_1,π_2): we understand the direct object of the grabbing event, namely a five-fingered leaf, to be elaborated upon as being the oval (that is needed to win a competition).[16] Interpreting the resulting SDRS involves merging the fiction box with both π_1 and π_2, so it follows that in the worlds of the story there is a five-fingered leaf that is oval.

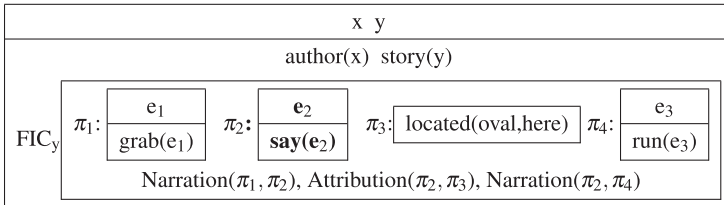15 For more discussion of Background, see Asher *et al.* (2007).
16 For more discussion of Elaboration, see Asher (1993); Hobbs (1979).

(28)

$$
\text{FIC}_y \quad
\begin{array}{|l|}
\hline
x \;\; y \\
\hline
\text{author(x)} \;\; \text{story(y)} \\
\hline
\pi_1: \boxed{\begin{array}{c} e_1 \\ \hline \text{grab}(e_1) \end{array}} \quad
\pi_2: \boxed{\text{located(oval,here)}} \quad
\pi_3: \boxed{\begin{array}{c} e_2 \\ \hline \text{run}(e_2) \end{array}} \\
\hline
\text{Elaboration}(\pi_1, \pi_2),\ \text{Narration}(\pi_1, \pi_3) \\
\hline
\end{array}
$$

Since this is clearly quite difficult to imagine, the reader might try to overcome their resistance through Character Perspective, i.e. inferring an Attribution effectively interpreting π_2 as the content of a thought (or perhaps more naturally in this case a speech event).

Formally we'd want to infer an Attribution with π_3 as the second argument. But what would be the first? Given the event-based report semantics of Attribution the first argument has to describe a speech or thought event, or perhaps an attitudinal state – something that can plausibly be said to have a propositional content. Earlier in the story we encountered a speech event by Sally ("Hang on, Sally said"), so the reader may readily accommodate a follow-up speech (or thought) event with the same agent. This gives the following SDRS representation for the final part of Treasure Hunt. (We'll represent the accommodated content – π_2, introducing implicit speech event e_2 – in **bold**):[17]

(29) $\dots \pi_1$: She grabbed a five-fingered leaf. π_2: (**She said:**) π_3: Here was the oval they needed! π_4: They ran off to claim their prize.

$$
\text{FIC}_y \quad
\begin{array}{|l|}
\hline
x \;\; y \\
\hline
\text{author(x)} \;\; \text{story(y)} \\
\hline
\pi_1: \boxed{\begin{array}{c} e_1 \\ \hline \text{grab}(e_1) \end{array}} \quad
\pi_2: \boxed{\begin{array}{c} \mathbf{e_2} \\ \hline \mathbf{say}(e_2) \end{array}} \quad
\pi_3: \boxed{\text{located(oval,here)}} \quad
\pi_4: \boxed{\begin{array}{c} e_3 \\ \hline \text{run}(e_3) \end{array}} \\
\hline
\text{Narration}(\pi_1, \pi_2),\ \text{Attribution}(\pi_2, \pi_3),\ \text{Narration}(\pi_2, \pi_4) \\
\hline
\end{array}
$$

4.3 Unreliable narration as Attribution

Before we discuss the Narrator Accommodation strategy for coping with imaginative resistance we have to first show how to deal with unreliable first person narration more generally. Consider a typical case of an unreliable first person narration, like Ken Kesey's *One Flew Over The Cuckoo's Nest*, which tells the story of McMurphy's rebellion against nurse Ratchett in a psychiatric hospital, through the eyes of one of the patients, Chief Bromden. Consider the following passage:

(30) Then, just as she's rolling along at her biggest and meanest, McMurphy steps out of the latrine door right in front of her, holding that towel around his hips – stops her *dead*! She shrinks to about head-high to where that towel covers him. I lift the sponge

---

17 Much more needs to be said about free indirect discourse in this Attribution framework. With the current semantics of Attribution we're just treating it as implicitly embedded indirect discourse. But of course true free indirect discourse is characterized by its mixing of direct and indirect features. See Maier (2021) for formal details on the SDRT/Attribution analysis of free indirect discourse.

up above my head so everybody in the room can see how it's covered with green slime and how hard I'm working. (Ken Kesey *One Flew over the Cuckoo's Nest* 1962)

Reading the novel, we note that there's a first person narrator, Chief Bromden, but we mostly take the story at Face Value nonetheless. With respect to this passage, it seems true in the story that Nurse Ratchett is stopped by McMurphy coming from the latrine, but her shrinking and the green slime are probably best interpreted as Bromden's hallucination.

Given our SDRT framework we can bring in the non-veridicality of the unreliable part through the inference of an Attribution relation.[18] Just like in Interstate and Treasure Hunt, a Face Value interpretation amounts to inferring veridical relations, but when that fails or leads to a highly implausible or incoherent overall reading of the narrative we might instead accommodate, as in Treasure Hunt, an implicit speech or thought event (π_4) and connect a fragment of the discourse graph (π_3) to it through Attribution. As before, we'll represent the accommodated discourse unit in bold. Moreover, as part of the background for interpreting this passage we'll assume discourse referents u, v, w for the main characters already set up in the global universe of the fiction-box.

(31)
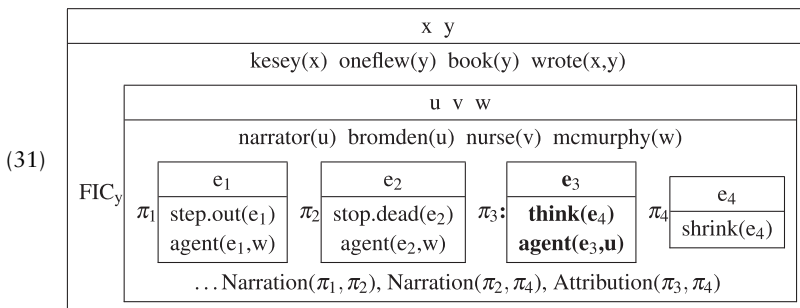
In (31) the reader accepts the narrator's words as reliably presenting events in the story world, until she gets to the nurse shrinking part, which she takes as a description of the content of a thought by the narrator instead.

On the current analysis, unreliable narration and free indirect discourse interpretation involve very similar interpretation processes: a basic, default Face Value strategy, involving veridical discourse relations, leads to the assumption of an unexpectedly deviant story world, so we reinterpret the passage in question by accommodating a mental or linguistic event and connecting it to the offending passage through the non-veridical discourse relation, Attribution.[19] From the current discourse theoretic perspective, the main difference between the two is that we get attribution to the narrator in (what we call) unreliable narration, while free indirect discourse involves attribution to any salient characters.

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18   Alternatively, Maier & Semeijn (2021) propose a way of dealing with this type of unreliable narration without discourse relations and SDRT, using instead a modified form of Eckardt (2014) Cautious Updating in regular DRT.

19   An anonymous referee suggests an alternative position where Face Value, Character Perspective and Narrator Accommodation are three independent strategies. In other words, unlike what we propose, Face Value would not be treated as the default, with the other two strategies as possible reinterpretation options to repair a failed default. We leave it to future (empirical) research to decide between these two views.

4.4 *Narrator accommodation in Fish Tank*

As discussed above not all alleged imaginative resistance stories will allow a free indirect discourse interpretation, either because they don't meet the morphosyntactic criteria, or because ascribing the thought to one of the salient characters does not make sense. And unreliable narration, as described above, requires a first person narrator, so that option seems blocked in the original versions which were all impersonal narrations, without any first person pronouns or other clear signs of a first person narrator. We proposed that in such cases, when faced with a jarring passage, the reader will accommodate a narrator, i.e. accommodate a discourse referent 'u' with condition 'narrator(u)', thus switching from impersonal to personal narration. This would allow the reader to interpret the relevant passage by attributing it to that narrator.

As an example of this Narrator Accommodation strategy, recall Fish Tank. A Face Value interpretation would lead to a story world where it is in fact a good thing to kill your father's beloved pets because you are annoyed. In the context of this very short story this Face Value reading seems rather far-fetched and hard to accept, so we might want to look for a different interpretation, where the morality of the story world is more in line with our own sense of morality. Following the Character Perspective strategy we'd assume a free indirect discourse construction and attribute the final evaluation to Sara. This reading is not impossible to get, but it's a bit unexpected for Sara herself to explicitly evaluate her own actions by saying to herself "good thing that I did".[20] A final option then is Narrator Accommodation, which consists in accommodating an explicit personal narrator and then attributing the evaluation to them. The resulting reading is represented in (32), with the inferred content that constitutes the Narrator Accommodation marked in bold.

(32) Sara never liked animals … she poured bleach in the big fish tank … Good thing that she did, because he was really annoying.
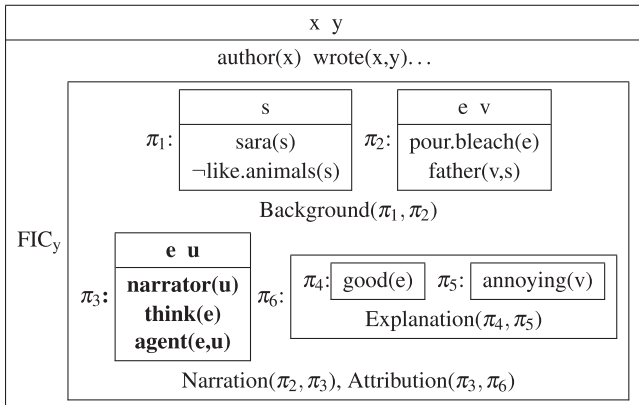
On this reading the story world's moral code need not be fundamentally different from our own – Sara did not do the right thing in killing the fish. Instead, this reading assumes the presence of an opinionated, unnamed fictional narrator who's telling the story and commenting on the events. Readers who get this reading would point to this narrator when asked whose opinion it is that killing the fish was a good thing.

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20   Recall the discussion of Death on the Freeway at the end of §2.2.

5 CONCLUSION

Some stories are hard to take at face value. It may not be impossible to imagine a fictional world where people mostly look, talk, and behave like we would, but where the moral, logical, or physical laws are fundamentally different. Stories that ask readers to imagine such worlds give rise to what is known as imaginative resistance.

Philosophers have long been debating the existence, nature, and causes of imaginative resistance. This paper doesn't directly contribute to these debates. Instead, we take imaginative resistance to be the breakdown of a default interpretation strategy, Face Value, and explore possible other, equally valid and indeed common interpretation mechanisms. Concretely, in this paper we motivated two such 'coping' strategies, Character Perspective and Narrator Accommodation, and integrated them into a general formal semantic framework for interpreting fictional stories. Our main contribution to discourse semantics is the use of a coherence relation of Attribution to make precise what is involved in following a Character Perspective or Narrator Accommodation strategy.

Appendix: Survey

We designed a survey to solicit some lay person judgments about interpretations of standard examples of imaginative resistance from the philosophical literature. We selected 10 imaginative resistance stories from the literature and added two of our own. All stories were written from an impersonal omniscient narrator perspective. For comparison we made two minimal variations on each, one where the crucial evaluative or inconsistent assertion is explicitly embedded in a direct or indirect report, and one first-person variant, where the narrator is a character in the story.

We made three lists containing one version of each of the twelve stories and participants were randomly assigned to a list, whose twelve items were presented randomly (using Qualtrics). Each participant first saw instructions:

(33)   There are twelve short fictional mini-stories, each followed by three questions. The entire task should take about 15-17 minutes. Some questions are of the form "To what extent do you think it is true in the world of the story that such-and-such?", and your answer will be a number on a scale from 1 ("No, in the story I just read, such-and-such is definitely not true") to 5 ("Yes, in the story I just read, such-and-such is definitely true"). Some questions will use the concept of a "fictional narrator". This narrator is the fictional entity that supposedly tells the story. In some types of stories this corresponds to the first person "I" character, while in others there's a more abstract "impersonal" or "omniscient" narrator. When we refer to "the author" we mean the actual person who wrote these little stories.

To detect resistance and distinguish different coping strategies, each story was followed by: a control question (e.g. (34a)), a resistance question (e.g. (34b)), and a perspective question (e.g. (34c)).

(34)   **Giselda's Baby** After hours of painful labor, Giselda gave birth to a beautiful baby girl. Unbeknownst to her husband however, the baby girl was not his; she had had a longstanding affair with another man. In cheating on her husband and lying to him about it, Giselda did the right thing though; after all, her husband didn't need to know.

a. To what extent do you take it to be true within the fictional world of this story that Giselda cheated on her husband?

○ ○ ○ ○ ○
1 2 3 4 5

b. To what extent do you take it to be true within the fictional world of this story that Giselda did the right thing?

○ ○ ○ ○ ○
1 2 3 4 5

c. Whose opinion is it that Giselda did the right thing?
☐ The author's
☐ The fictional narrator's
☐ Giselda's
☐ None of the above

We surveyed 24 participants through Amazon's Mechanical Turk. Two participants were excluded on the basis of failing 3 control questions, leaving 8 in list I, 6 in list II, and 8 in list III.[21] We report and briefly discuss some raw exploratory survey findings here in the hope that they might help design proper experiments in the future.

We can detect Face Value readings by looking at the answers to the acceptance question: To what extent do you take it to be true in the world of the story that the box is full and empty at the same time? / that Giselda did the right thing? etc. High scores indicate that the reader accepts the deviant proposition as a fictional truth, which indicates a face value interpretation. In Figure 1 we plot our 12 stories with their mean acceptance scores.

The story that seems to show the highest acceptance – and hence is perhaps most prone to a Face Value interpretation – is Interstate, featuring a highly incredible but not logically impossible or morally impermissible state of affairs (2000 miles of highway have been painted with intricate floral patterns; Story 6 below). On the other side, Fish Tank (Story 11 below) has the lowest acceptance: nobody took the story's explicit claim that the killing was a good thing at Face Value.

If we look at the mean acceptance scores for the explicit report versions we see that in most cases participants are less likely to accept the crucial immoral or impossible proposition when it's embedded in an explicit report (see Figure 2).

We see two clear cases where acceptance does not go down in the report version as compared to the original: Fish Tank (Story 11) and Weather Forecast (Story 5). We might take this as evidence that participants overwhelmingly applied a coping strategy to their interpretation of the original story, ascribing the content to either a character or an accommodated narrator rather than accepting it as true. We can confirm this by looking at the answers to the perspective questions (see Figure 3).

Looking finally at the first-person variants, we might expect that acceptance goes down compared to the original impersonal versions. Interestingly, we see no such pattern (see Figure 4).

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21 Complete data file available as Google Sheet here: https://docs.google.com/spreadsheets/d/1JZ0s_f1N6RKrNqj3Lh1vGlGjtXA4zip_iSQCm7fHFQQ/. The c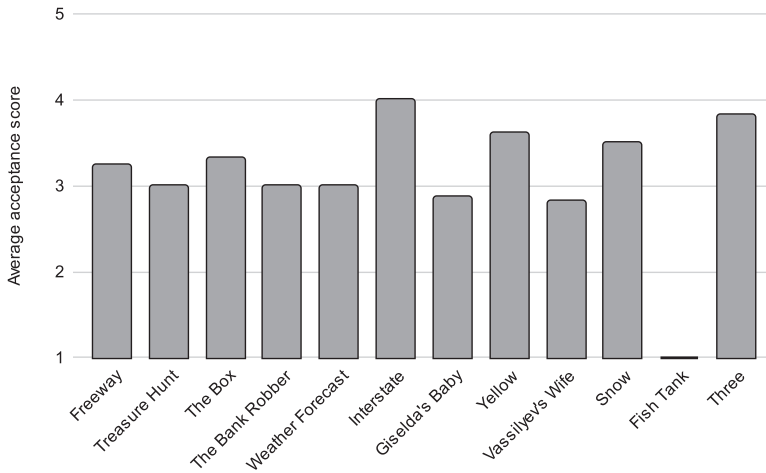omplete materials of the survey can be downloaded here: https://drive.google.com/file/d/120U9eIak5f8zur5IASG4-3BlsbrMlAsg/.

Figure 1 Mean acceptance scores of target proposition in the original stories (1 = not true, 5 = true).
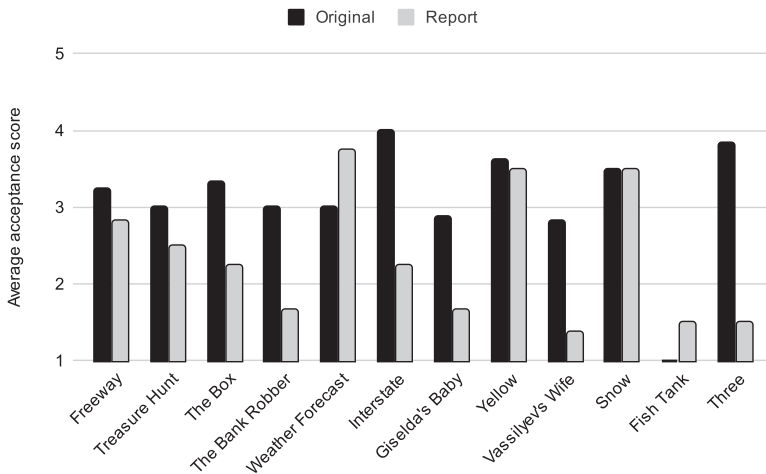

Figure 2 Mean acceptance scores of target proposition in the original stories and the report manipulations (1 = not true, 5 = true).

For many of our stories there is not much difference, readers apparently were already not taking the deviant content at face value in the originals, so making the first person perspective explicit didn't bring down acceptance further. We take this as evidence for a strategy of bypassing resistance by interpreting the original seemingly impersonal stories as first-person narrations, through Narrator Accommodation.

Stories

Story 1: Death on the Freeway (Weatherson, 2004)

Jack and Jill were arguing again. This was not in itself unusual, but this time they were standing in the fast lane of I-95 having their argument. This was causing traffic to bank up a bit. It wasn't significantly worse than normally happened around Providence, not that
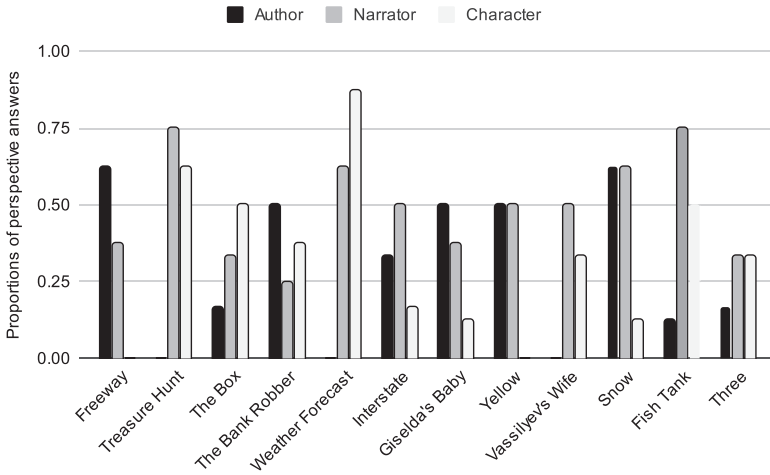
Figure 3 Proportions of narrator, character, and author answers to the perspective question in the original stories.
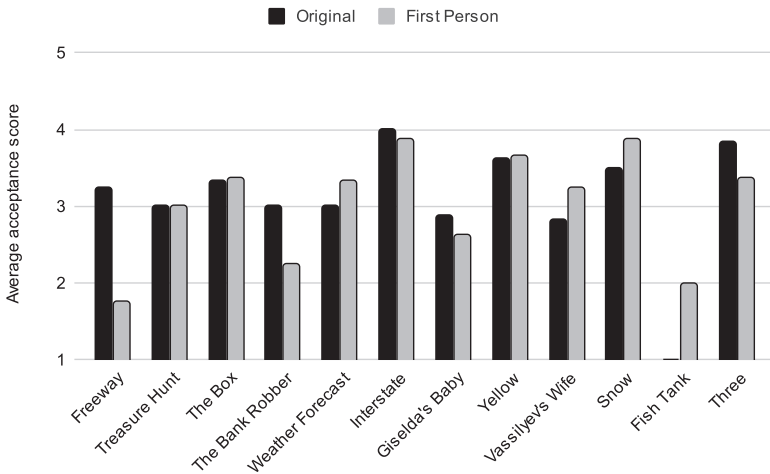

Figure 4 Mean acceptance scores of target proposition in the original stories and the first person manipulation (1 = not true, 5 = true).

you could have told that from the reactions of passing motorists. They were convinced that Jack and Jill, and not the volume of traffic, were the primary causes of the slowdown. When Craig saw that the cause of the bankup had been Jack and Jill, he took his gun out of the glovebox and shot them. People then started driving over their bodies, and while the new speed hump caused some people to slow down a bit, mostly traffic returned to its normal speed. So Craig did the right thing, because Jack and Jill should have taken their argument somewhere else where they wouldn't get in anyone's way.

Story 2: Treasure Hunt (Yablo, 2002)
They flopped down beneath the giant maple. One more item to find, and yet the game

seemed lost. Hang on, Sally said. It's staring us in the face. This is a maple tree we're under. She grabbed a jagged five-fingered leaf. Here was the oval they needed! They ran off to claim their prize.

Story 3: The Box (Priest, 1997)
Carefully, Mary broke the tape and removed the lid. The sunlight streamed through the window into the box, illuminating its contents, or lack of them. For some moments Mary could do nothing but gaze, mouth agape. At first, she thought it must be a trick of the light, but more careful inspection certified that it was no illusion. The box was absolutely empty, but also had something in it. Fixed to its base was a small figurine, carved of wood, Chinese influence, Southeast Asian maybe.

Story 4: The Bank Robber (Weatherson, 2004)
Peter saw his friend Sue Remnick rushing out of a bank carrying in one hand a large bag with money falling out of the top and in the other hand a sawn-off shotgun. Sue Remnick recognized Peter across the street and waved with her gun hand, which frightened Peter a little. Peter was a little shocked to see Sue do this, because despite a few childish pranks involving stolen cars, she'd been fairly law abiding. So Peter decided that it wasn't Sue who robbed the bank but really a shape-shifting alien that looked like Sue. Although shape-shifting aliens didn't exist, and until that moment Peter had no evidence that they did, this was a rational belief. False, but rational.

Story 5: Weather Forecast (Kim et al., 2018)
Jack and Mary are watching the weather forecast. The presenter says: "Tomorrow there will be two to three inches of snow. It will begin to snow at around 9am, and the temperature will fluctuate between 27° and 31° F," Jack and Mary look at each other and start to laugh. This is understandable, since that weather forecast was very funny.

Story 6: Interstate (Kim et al., 2018)
Jenny was driving along Interstate 95, the main Interstate Highway on the East Coast of the United States, running largely parallel to the Atlantic Ocean and U.S. Highway 1. Last summer, this highway was painted solid yellow and superimposed with intricate black flower patterns for its entire 2000-mile length.

Story 7: Giselda's Baby (Kim et al., 2018)
After hours of painful labor, Giselda gave birth to a beautiful baby girl. Unbeknownst to her husband however, the baby girl was not his; she had had a longstanding affair with another man. In cheating on her husband and lying to him about it, Giselda did the right thing though; after all, her husband didn't need to know.

Story 8: Yellow (Kim et al., 2018)
Adaleine, Picasso's greatest student, was a prolific painter, whose work was unfortunately lost to history - with the exception of her last painting: A 3 x 4' canvas, painted from edge to edge in the exact same shade of yellow as the McDonald's golden arches. It is without doubt one of the most beautiful works ever made.

Story 9: Vassilyev's Wife (translated and adapted from Daniil Kharms)
Feodor Vassilyev was a peasant from Shuya, Russia. His first wife lived to be 76 and, between 1725 and 1765, had many children. On one particular day, she gave birth to twenty eight

baby girls. Few other details are known about the life of Vassilyev's wife, such as her name and date of birth or death.

Story 10: Snow (Kim *et al.*, 2018)
According to the forecast I heard, there would be two to three inches of snow on Tuesday. It would begin to snow at around 9am, and the temperature would fluctuate between 74° and 81° F. There was no doubt at all that all this would be true, for the forecast has never been wrong.

Story 11: The Fish Tank (original)
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.

Story 12: Three (Kim *et al.*, 2018)
Long, long ago, when the world was created, the number three was the sum of two primes. Although most people suspected that this was the case, Moira was not completely certain. When Zaro heard about this uncertainty, he became angry. He proclaimed that from that day forth, nothing could be the sum of two primes anymore. And from then on, three was the sum of four and six.

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