Revisiting the ‘Wrong Kind of Object’
Problem

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Abstract

Any uniform semantic treatment of fictional names (e.g., ‘Frodo’) across parafictional statements (e.g., ‘In The Lord of the Rings, Frodo was born in the Shire’) and metafictional statements (e.g., ‘Frodo was invented by Tolkien’) runs into a variation of the problem of the wrong kind of object. Whereas flesh and blood individuals are not the right kind of objects to be invented by someone, abstract objects are not the right kind of objects to be born in a certain region. Abstract object theory has provided a solution to this conundrum by distinguishing two modes of predication: encoding and exemplifying. Recently Klauk has argued that the problem reappears for the analysis of explicit parafictional statements in this theory. In this paper we formalize the objection and show that one can distinguish three separate issues in connection with the ‘wrong kind of object’ problem. We then address them in turn.

Keywords: Abstract object theory, story operator, hyperintensionality, mixed discourse, parafictional statements, the problem of the wrong kind of object

1 The ‘wrong kind of object’ problem

Semanticists of fiction distinguish between (at least) four different types of statements that feature fictional names (i.e., names of fictional entities). Consider the following four statements about Frodo:

(1) Frodo had a very trying time that afternoon.
(2) Frodo was born in the Shire.
(3) In/According to The Lord of the Rings, Frodo was born in the Shire.
(4) Frodo was invented by Tolkien.

We shall categorize, and subsequently refer to these statements, using the following terminology:

- (1) is a fictional statement, i.e., it is part of a fictional narrative (e.g., (1) is a quote from Tolkien’s The Lord of the Rings). Such statements are usually understood as neither true nor false but rather as fictional truth-makers; the act of storytelling determines what is true in the fictional story.
- (2) and (3) are parafictional statements, i.e., statements about what is true in some fiction but which are not part of the original storytelling. These statements are usually analysed as being true or false (depending on the content of the fictional story) and can be either ‘explicit’ like (3) or ‘implicit’ like (2) (depending on whether the ‘In/According to fiction/story s,’-prefix is overt).
- (4) is a metafictional statement, i.e., a statement about a fictional entity as a fictional entity that can be true or false.

Any uniform semantic treatment of fictional names across these different types of statements runs into a variation of ‘the problem of the wrong kind of object’. If we adopt a realist approach and assume that the name ‘Frodo’ refers uniformly to an abstract object (e.g., Zalta (1983; 1988a) or Inwagen (1977)), we run into difficulties with the interpretation of (1), (2)

1Here we follow Recanati’s (2018) terminology. Note that a sentence like (1) can also function as an implicit parafictional statement if used in a discussion about the content of The Lord of the Rings.

2We adopt this term from Klauk (2014) although he uses it to refer to only the realist variant of the problem.
and (3); abstract objects are not the right kind of things to have trying times or be born in certain regions. On the other hand, if we adopt an antirealist approach and take the name ‘Frodo’ to refer uniformly to a flesh and blood individual in a set of counterfactual or pretense worlds (e.g., Lewis (1978), Walton (1990), or Maier (2017)), we run into difficulties with the interpretation of (4); flesh and blood individuals are not the right kind of things to be invented.

In this paper, we investigate fictional names by using the theory of abstract objects (hereafter object theory) as a theoretical framework (1983; 1988a). We use this framework to solve the realist version of the ‘wrong kind of object’ problem. Before delving into this debate we shall examine what’s required of a uniform semantic analysis of fictional names in light of the debate on ‘mixed’ discourse (section 2). We then turn to the solution that object theory offers to the problem of the wrong kind of object. This solution centers around a distinction between two modes of predication: ‘encoding’ and ‘exemplifying’ (section 3). We discuss a challenge to this solution that has recently been posed by Klauk (2014) according to which the problem persists for explicit parafictional statements (section 4). We offer a formalisation of this objection in object theory and show that the objection raises three separate issues that need to be addressed. In showing how object theory addresses those issues, we point out that the story operator creates a hyperintensional environment akin to that created by propositional attitude reports (section 5). We conclude with some insights that emerge about entailment relations among fictional, parafictional, and metafictional statements (section 6).

2 A uniform semantics for fictional names

In addition to the distinction between fictional, parafictional, and metafictional statements, discussions about the analysis of fiction have also introduced a distinction between discourse that is ‘internal’ to the fiction and discourse that is ‘external’ to the fiction. The distinction attempts to separate discourse in which we describe the world of a fiction from a perspective within the fiction (e.g., talking about Frodo as a flesh and blood individual) from discourse where we describe the world of a fiction from a perspective outside of the fiction (e.g., talking about Frodo as a fictional character). We’ll see below, however, that some sentences constitute ‘mixed discourse’ in that they combine internal and external forms of discourse. These sentences gives rise to the question of whether a uniform semantic analysis of internal and external discourse is possible. And this question can be posed for our initial distinction among sentences: is there a uniform semantic analysis of fictional, parafictional, and metafictional statements?

In what follows, we shall examine some arguments in favour of a uniform semantic analysis across internal and external discourse. Second, we will reformulate the desideratum of a uniform semantic treatment of fictional names. As it turns out, the literature on mixed discourse only establishes a need for a uniform analysis across parafictional and metafictional statements. It is not clear whether this desideratum extends to a uniform analysis across fictional, parafictional and metafictional discourse.

2.1 Mixed discourse

An intuitive reply to the problem of the wrong kind of object is to assume (following Kripke (2011) and Currie (1990)) that fictional names are ambiguous; they refer to concrete objects (e.g., a flesh and blood hobbit called ‘Frodo’) in fictional and parafictional statements and they refer to abstract objects (e.g., an abstract entity called ‘Frodo’) in metafictional statements. But a central problem with this analysis is that it doesn’t work for mixed discourse, where co-predication and the use of anaphoric pronouns is not only admissible but quite natural (Recanati (2018), Everett (2013, p.163–178), and Collins (2019)). For instance, consider:

(5) Bond is a killer but remains as popular as ever. (Collins (2019, p.1))

(6) Sherlock Holmes is a fictional character created by Conan Doyle. In Conan Doyle’s stories, he [Sherlock Holmes] is a private detective who investigates cases for a variety of clients, including Scotland Yard. (Adapted from Recanati (2018, p.37))

(5) is mixed discourse because Bond’s being a killer is said from within the perspective of the story, but his remaining as popular as ever is said from outside the perspective of the story. (6) is a similar, but more extended, example. The admissibility of such co-predications (5) and anaphoric dependencies (6) suggests that names like ‘Bond’ can’t be ambiguous in (5), and that ‘Sherlock Holmes’ and ‘he’ co-refer in (6). This forms a prima facie reason to avoid an ambiguity analysis and to instead develop a uniform
semantic analysis across internal and external discourse.

### 2.2 The internal/external distinction

The internal/external distinction has been used to subcategorize the sentences (1) – (4) in different ways, namely:

- to distinguish (1) – (2) from (3) – (4),
- to distinguish (1) – (3) from (4), and
- to distinguish (1) from (2) – (4).

For some theorists, the internal/external distinction helps to distinguish sentences (1) and (2) from (3) and (4). Clearly (1) is internal, but consider the analysis of implicit parafictional statements such as (2) used in a discussion on what is fictionally true in *The Lord of the Rings*. In particular, consider a mini-discourse where you reply to the question “Where was Frodo from *The Lord of the Rings* actually born?” with (2) “Frodo was born in the Shire”. According to theorists such as Everett (2013) and Lamarque & Olsen (1994), (2) is an (unofficial) continuation of the fictional pretense initiated by Tolkien and hence obviously internal. However, when (in response to the same question) you utter an explicit parafictional statement such as (3) “In/According to *The Lord of the Rings*, Frodo was born in the Shire”, you talk about *The Lord of the Rings* as a fictional work and hence adopt an external perspective. The internal/external distinction thus separates fictional and implicit parafictional statements from explicit parafictional and metafictional statements.

Other theorists, such as Recanati (2018) and Evans (1982), consider implicit parafictional statements (e.g., (2)) to be abbreviations of explicit parafictional statements (e.g., (3)) and hence treat them on a par. Both types of parafictional statements involve a continuation of the pretense and hence both are internal (although, for Recanati, parafictional discourse does contain an irreducible external component). Thus, for some theorists, the internal/external distinction separates fictional and parafictional discourse in (1) – (3), from the metafictional discourse in (4).

Still other theorists, such as Currie (1990) and Zucchi (2017) also treat implicit and explicit parafictional statements on a par but would use the internal/external divide to distinguish fictional discourse from parafictional and metafictional discourse. The former involves pretense while the latter two kinds do not.

Note that the first two uses of the internal/external distinction do not distinguish between fictional and implicit parafictional statements (i.e. both are examples of internal discourse). In other words, the original acts of storytelling (e.g., the sentences in a copy of *The Lord of the Rings*) are treated on a par with unprefixed statements about fictional truths (e.g., your statement that Frodo was born in the Shire). This conflation can be misleading in the context of the debate on mixed discourse since the available examples of anaphoric dependencies or co-predication in mixed internal/external discourse involve only parafictional and metafictional statements and not fictional discourse. So while considerations of co-predication and the admissability of anaphoric dependencies require a uniform analysis for the parafictional and metafictional discourse in mixed discourse, there is (as yet) no warrant for a uniform analysis that includes fictional discourse.\(^3\)

The obvious question is thus whether there can also be co-predication or anaphoric dependencies in fictional/parafictional and fictional/metafictional discourse. Prima facie, this is possible but once we try to concoct examples of such discourse the language loses all of its naturalness. Consider the following (attempts at) anaphoric links across fictional/parafictional, and fictional/metafictional discourse:

(7) In the story I made up yesterday, a wizard called Brian falls in love with a cauldron. Let me tell it to you: One day, he was alone in his study trying out a new love-potion recipe...

(8) Frey is a fictional character I made up and is the protagonist of my newest story. Here it is: One day she was walking through the woods near her home...

(9) In order to capture the witch, Mary travelled to the woods and disguised herself as a potato.* In the woods she [Mary] encountered many perils...

\(^3\)Recanati is, and Everett seems to be, aware of this; Recanati’s examples explicitly only target mixed (implicit and explicit) parafictional/metafictional discourse and Everett hints at the need for a distinction “between discourse which takes place within the original base pretense [fictional discourse] and discourse which takes place within an extension of that base pretense and which is used to convey information about it [implicit parafictional discourse]” (2013, p.165-166)) and concedes that the given examples of mixed internal/external discourse are always of an extended pretense.
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*I know this is weird but I invented her [Mary] while eating chips.

(10) Hans and Gretel approached the skyscraper. “Maybe you should have a look inside, Gretel. They might have candy”, whispered Hans.* Gretel moved closer...

In this story, she is the hero that saves the day. He is the villain.

The anaphoric links seem possible (i.e. the statements are interpretable) but are very awkward. In order to clearly separate the parafictional and metafictional statements from the fictional discourse, the remarks outside the storytelling either have to be clearly marked in the language (e.g., “Let me tell it to you;” or “Here it is;” in (7) and (8)), or by some other means such as by changing the tone of voice as we do in an ‘aside’ (e.g., quickly murmuring the metafictional and parafictional statements in spoken versions of (9) and (10)) or by changing the layout for the written language (e.g., the metafictional and parafictional statements in (9) and (10) are part of footnotes), etc. Hence it becomes extremely challenging to come up with examples of co-predication involving mixed fictional and meta- or parafictional discourse. Moreover, the examples of anaphoric dependencies such as those above are decidedly not as common nor as natural as the examples we gave of mixed discourse.

In addition, once we do manage to ‘insert’ such non-fictional statements in the fictional narrative it is not obvious that anaphoric references are in fact permissible. It would be more appropriate to start the fictional discourse in (7) and (8) with use of the names ‘Brian’ and ‘Frey’ (or even better “Once upon a time there was a wizard/creature named Brian/Frey who...”). Similarly, it is more natural to use the names Mary (or even better “this character”), Hans, and Gretel, rather than anaphoric pronouns, in the footnotes in (9) and (10).

We think, therefore, that there is a prima facie case for developing a semantic treatment of fictional names as used in (1) during a storytelling and a separate semantic treatment of fictional names as used in (2) – (4). When we closely examine the various kinds of discourse, the following desideratum for a theory of fictional names emerges: the account of admissible co-predications and anaphora across different kinds of statements requires only a uniform semantic treatment across parafictional and metafictional statements. So even though it might be thought that a uniform semantic treatment of fictional names across all forms of discourse is desirable, the use of names in the pretense of fictional discourse seems to be quite different from the use of names in parafictional and metafictional discourse.

3 Object theory

Now that we have established the need for a uniform semantic treatment of fictional names across parafictional and metafictional statements (and hence the need to solve the problem of the wrong kind of object), let’s turn to a theory that attempts to give such an analysis: object theory.

3.1 Encoding and exemplifying

Object theory⁴ offers a solution to the ‘wrong kind of object’ problem by distinguishing two modes of predication, two kinds of object, and a primitive property of being concrete (E!). The exemplification mode of predication is the one used to read ordinary predicate calculus statements of the form Fx, Rxy, etc. But encoding is a form of predication used to characterize the way in which ‘abstract’ objects have the properties that define them. Using this distinction, the theory defines: x exemplifies being an ordinary object (O!x) just in case it exemplifies, or could have exemplified, being concrete (♦E!x). By contrast, x exemplifies being an abstract object (A!x) just in case it could not have exemplified being concrete (¬♦E!x). For example, numbers and sets are not the kind of thing that could have exemplified being concrete, and so they are considered abstract. If an ordinary object like my table (t) exemplifies being round (R), it has the property of roundness in the standard sense. So natural language claims about ordinary objects can be represented using standard predicate logic notation:

(11) My table is round.

1. Rt

In constrast, by encoding a property, an abstract object ‘has’ this property as one of its constitutive characteristics, i.e. the properties that are encoded by some abstract object define this abstract object (and allow us to individuate between abstract objects). For instance, since the property

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of having no members is, in set theory, definitive of the empty set (\(\emptyset\)), object theory treats it as an object that encodes the property of having no members (\(M\)). So a simple predication to the effect that the null set has no members has to be represented as an encoding statement, in which the argument term is written to the left of the predicate:

(12) The empty set has no members.

2. \(\emptyset M\)

Ordinary objects do not encode properties but abstract objects do exemplify properties. For instance, the empty set exemplifies being widely discussed (\(W\)), i.e., it has this property but the property is not constitutive of its essence:

(13) The empty set is widely discussed.

3. \(W\emptyset\)

3.2 Fiction

On the view presented here, discourse about fiction involves two types of abstract objects: stories and fictional characters. A story (e.g., The Lord of the Rings) \(s\) is an abstract object that encodes the content of a narrative; it encodes vacuous or propositional properties of the form being such that \(p\) is true ([\(\lambda x\ p\)], where \(p\) is a proposition that satisfies true natural language statements of the form “In/According to story \(s\), \(p\)”.

A fictional character is an abstract object that is native to a story (e.g., Frodo in The Lord of the Rings but not Napoleon in War and Peace).

Contrary to analyses given by authors such as Recanati, Currie and Zucchi, object theory rigidly distinguishes implicit and explicit parafictional statements. ‘Implicit’ parafictional statements have a reading on which they are simple predications about what properties a certain abstract object encodes. This is possible given object theory’s realist approach to fictional characters: since they exist as abstract objects, we can talk about them as we do about ordinary objects (i.e., without a story operator or some type of pretense). So ignoring tense, one can read (2) as an encoding statement about Frodo (\(f\)) and being born in the Shire (\(S\)).

(2) Frodo was born in the Shire.

4. \(fS\)

Explicit parafictional statements on the other hand are analyzed by treating the prefix ‘In/According to story \(s\)” as an operator. This operator applies to exemplification statements that make up the content of the story. For instance (3) expresses that The Lord of the Rings encodes the property of being such that Frodo exemplifies being born in the Shire:

(3) In/According to The Lord of the Rings, Frodo was born in the Shire.

5. \([\lambda x\ Sf]\)

The axioms and definitions of object theory imply that if \(x\) is a character native to a story \(s\), then \(x\) encodes a property \(F\) if and only if \(x\) exemplifies \(F\) in \(s\) (1983, p.94):

\[
\forall x\forall s(\text{Native}(x, s) \rightarrow \forall F(xF \equiv s[\lambda y Fx]))
\]

Thus, there is an equivalence between the readings of implicit and explicit parafictional statements about native fictional characters (e.g., the representations of (2) and (3)) imply one another given that Frodo is native to The Lord of the Rings.

By contrast, metafictional statements are statements about what properties fictional characters exemplify. For instance, (4) expresses that Frodo exemplifies the property of being invented (\(I\)) by Tolkien (\(t\)):

(4) Frodo was invented by Tolkien.

6. \([\lambda y\ Ity]\)

\(5\) All objects exemplify the same propositional properties, i.e., all propositional properties derived from true propositions (e.g., everything exemplifies being such that penguins can’t fly (\(q\): \(\forall x[\lambda y qx]\)) but only abstract objects encode propositional properties (see Zalta (1988a, p.61)).

\(6\) Strictly speaking, fictional names and properties should be indexed to the fiction in which they originate (see Zalta (2017)): \(f_t\) and \(S_t\), where \(l\) is the story The Lord of the Rings. For the purpose of this paper we adopt a simpler notation.

\(7\) Later in this paper, we’ll note that the story operator creates a hyperintensional context and that this creates a de re/de dicto ambiguity. The following formal representation expresses the de re reading, and later we’ll offer a second formal representation of (3) that expresses the de dicto reading. This applies to other explicit parafictional statements as well.
With this basic analysis of parafictional and metafictional statements in object theory, we turn to fictional statements (e.g., (1)). These are part of a storytelling practice that is needed in order to secure a reference for names of fictional objects. Zalta (1987 [2003], 2000) suggested that the practice of storytelling constitutes an extended naming baptism of the fictional characters in the story. As such, the use of the names in a story is like an extended definition and reference doesn’t take place until a storytelling has been completed. It is consistent with this idea to suggest that the use of names during the practice of storytelling involves pretend-reference. This pretend-reference in the practice of storytelling is needed to achieve real reference in parafictional and metafictional statements. For example, the reference of the name ‘Frodo’ is determined by Tolkien’s act of writing The Lord of the Rings saga); once the storytelling is complete, object theory yields a unique object for the name ‘Frodo’ to denote, namely, the abstract object that encodes exactly the properties such that in the story, Frodo exemplifies $F$. In effect, object theory takes this parafictional data of this latter form to determine the denotation of the name. The idea that reference to fictional characters supervenes on the practice of storytelling can also be found in Kripke (2013), Schiffer (2003) and Searle (1975) (contra Hunter (1981)). Hence object theory unifies the semantic treatment of fictional names across parafictional and metafictional statements, but treats fictional discourse as having a special status. This conforms to the desideratum formulated at the end of section 2.

Prima facie, object theory’s treatment of fictional names straightforwardly solves the problem of the wrong kind of object. A fictional statement of a storytelling like (1) pretends to be about flesh and blood hobbits and pretends to suggest that they are having a trying time. But abstract objects are the right kind of objects for analyzing implicit parafictional and metafictional statements: they can encode properties like being born in the Shire and exemplify being invented by someone. And names in explicit parafictional statements involve reference to abstract objects as well, though under the scope of a story operator.

4 Does the Problem Return?

4.1 Is Tolkien’s Ring trilogy about abstract objects?

Recently, Klauk (2014) has suggested that the ‘wrong kind of object’ problem threatens to reappear for object theory when we consider the analysis of explicit parafictional statements:

[In Casablanca, Rick Blaine is cynical] would not mean anymore that an abstract object is cynical, but that, according to some movie, an abstract object is cynical. However, this is not persuasive. One way to see this is by remembering that recipients are typically prescribed to imagine whatever is the case according to a fiction. But viewers of Casablanca are not prescribed to imagine an abstract object that has a property (being cynical) that it actually cannot have. (Klauk (2014, p.241))

In the first sentence of this passage, Klauk argues that the inference from “In Casablanca, Rick Blaine is cynical” to “In Casablanca, an abstract object is cynical” is valid in object theory. Presumably, he would also say that the inference from (3) to “In The Lord of the Rings, an abstract object was born in the Shire” is also validated by object theory. In the next few subsections, we shall formalize the inference and then show that these inferences are in fact not valid in object theory.

Note that in the next part of this passage Klauk then argues why such inferences should not be accepted. Indeed, we agree with him that if these inferences were valid, that would count against the object-theoretic analysis – object theory would in fact be subject to the ‘wrong kind of object’ problem. Casablanca does not mandate that we imagine:

- Rick Blaine is an abstract object and is cynical.
- Some abstract object is cynical.

and The Lord of the Rings does not prescribe that we imagine:

- Frodo is an abstract object and was born in the Shire.
- Some abstract object was born in the Shire.

That is, we agree that the following are in fact false:

\[\text{In Casablanca, Rick Blaine is cynical} \]
\[\text{In The Lord of the Rings, a fictional character was born in the Shire} \]
In *Casablanca*, Rick Blaine is an abstract object and is cynical.

- In *Casablanca*, some abstract object is cynical.
- In *The Lord of the Rings*, Frodo is an abstract object and was born in the Shire.
- In *The Lord of the Rings*, some abstract object was born in the Shire.

So, if object theory were to imply those claims, it would allow us to derive falsehoods from the truths that “In *Casablanca*, Rick Blaine is cynical” and (3).

We also agree with Klauk when he says, in a later passage (2014, p. 242), “Although we can make-believe almost anything, to make-believe category mistakes is special and remarkable.” He goes on to describe cases where this would be an acceptable result, given the unusual nature of the story in question (e.g., because the story is about strange abstract objects). But he concludes, in this passage, that the above cases about *Casablanca* and *The Lord of the Rings* are not cases of unusual stories. These are standard cases of fictions in which the story makes it clear that it is talking about concrete objects. Here again, we accept this conclusion.

Thus, Klauk’s argument against object theory turns on whether the theory endorses the invalid inferences outlined above. We need to investigate the inferences that can be drawn in object theory between explicit parafictional statements, since these are the crux of his argument.

We plan to show that from the data, one can only infer that “in *Casablanca*, parafictional statements, since these are the crux of his argument. We will investigate the inferences that can be drawn in object theory between explicit parafictional statements, since these are the crux of his argument. We plan to show that from the data, one can only infer that “in *Casablanca*, a flesh and blood creature is cynical,” and “in *The Lord of the Rings*, a flesh and blood creature was born in the Shire.” We will focus primarily on the example from *The Lord of the Rings*, since what we say about it applies to the example from *Casablanca*.

### 4.2 Formalisation

To see the concern more clearly (and eventually see where Klauk’s argument breaks down) it will be useful to represent the problematic claims formally in object theory and then check to see whether the undesirable consequences can be derived from its axioms and definitions. But we start with a principle of object theory that will play an important role in what follows, namely the principle that allows one to identify native fictional characters as abstract objects. Given that Frodo is native to *The Lord of the Rings*, object theory implies (1983, p.93): Frodo (∃) is the abstract object that encodes exactly those properties that, according to *The Lord of the Rings* (∀), Frodo exemplifies:

\[
f = \lambda x (\exists y F(y) \land \forall z (xF(y) \equiv \lambda w F_f(w)))\]

Henceforth when we discuss the technical description on the right side of this identity in our text, we abbreviate it as \(\exists_{\text{Frodo}}\).

Now datum sentence (3), i.e., according to *The Lord of the Rings*, Frodo was born in the Shire, was represented in section 3 as 5:

\[
\lambda w S_f\]

It is important to note here that, although object theory allows for failures of substitutions of co-referring expressions in natural language (we’ll discuss this below), its formal language is fully denotational (or ‘extensional’); it preserves the principle of substitution of identicals without exception in its formalism, i.e., substitution of co-referring terms preserves truth in every context. Hence we can substitute the description \(\exists_{\text{Frodo}}\) in 7 for the name \(f\) in 5 to obtain the following:

\[
\lambda w S_f\]

At this point, 8 has been validly derived. But now three issues about 8 arise.

First, 8 appears to attribute inappropriate content to *The Lord of the Rings* (namely, that \(\exists_{\text{Frodo}}\) was born in the Shire). When we read 8 in natural language, it appears to say something false.

Second, if we can substitute identicals within the encoding claims of object theory, then the following argument becomes valid:

(3) In/According to *The Lord of the Rings*, Frodo was born in the Shire.

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9Those familiar with object theory will remember that, as it is currently formulated, a \(\lambda\)-expression of the form \(\lambda x \phi\) is well formed only if \(\phi\) contains no encoding subformulas. So it might be thought that 8 is not well-formed given the encoding formula in the description \(\lambda w S_f (\lambda x \forall F(xF(y) \equiv \lambda w F_f(w)))\). However, 8 is well formed, for the definition of subformula implies that \(xF\) is not a subformula of the description \(\lambda x (\exists y F(y) \land \forall z (xF(y) \equiv \lambda w F_f(w)))\). So \(xF\) is not a subformula of the formula \(\lambda w S_f (\exists y F(y) \land \forall z (xF(y) \equiv \lambda w F_f(w)))\). The only expressions that have subformulas are complex formulas; the subformulas of the matrix of a complex term do not become subformulas of any formula which contains the term.
(14) Frodo is the character portrayed by Elijah Wood.

(15) In/According to *The Lord of the Rings*, the character portrayed by Elijah Wood was born in the Shire.

Thus, from two true premises, we seem to be able to derive a false conclusion.

The third problem with 8 is that, when combined with the theory of definite descriptions, it appears to imply that *The Lord of the Rings* asserts something explicitly about an abstract object. Object theory uses a version of Russell’s theory of descriptions (1905), for it adopts the principle *Descriptions* (1988a, p. 90). This tells us that a formula of the form ‘the Q exemplifies (or encodes) property P’ is equivalent to ‘there is a unique y that exemplifies Q and there is a y that exemplifies Q and that also exemplifies (encodes) P’:

9. (a) \( P(x) \equiv \exists yQy \land \exists y(Qy \land Py) \)
   (b) \( \forall x(Qx) \equiv \exists yQy \land \exists y(Qy \land yP) \)

This principle applies to the formula embedded in 8:

10. \( \exists x(\exists !x \land \forall F(xF \equiv l[\lambda z Ff])) \equiv \exists y(\exists !y \land \forall (yF \equiv l[\lambda z Ff]) \land \exists y(\exists !y \land \exists F(yF \equiv l[\lambda z Ff]) \land Sy) \)

If we could then substitute the equivalent formulas in 8 we would obtain the following:

11. \( l[\lambda y \exists !y(\exists !y \land \exists F(yF \equiv l[\lambda z Ff]) \land \exists y(\exists !y \land \exists F(yF \equiv l[\lambda z Ff]) \land Sy)] \)

Focusing on the second conjunct of the \( \lambda \)-predicate, 11 says that *The Lord of the Rings* encodes (and hence that it is part of the content of *The Lord of the Rings*) that there is an abstract object that ... exemplifies being born in the Shire (i.e., \( \exists y(\exists !y \ldots Sy) \)). We agree that even though both 8 and 10 are derivable in object theory, the ‘wrong kind of object’ problem would return if these two claims implied 11. But, in fact, they do not, as the following analysis will show.

In what follows, we address all three of the foregoing problems. Our investigations will address the first problem by showing why 8 should not be read in natural language and so does not assert anything seriously problematic about the content of *The Lord of the Rings*. We address the second problem by appealing to a *de re/de dicto* ambiguity and showing how object theory offers a reading on which (3) and (14) do not imply (15). We address the third problem by showing that 8 does not imply anything that suggests it is part of the fictional discourse of *The Lord of the Rings* that there is an abstract object that exemplifies being born in the Shire.

5 The realist reply

5.1 Hyperintensionality

For reasons of simplicity, we start with the third problem. To see that 8 and 10 do not imply 11, one only has to observe that substitution of necessarily equivalent properties is not generally valid in object theory. \( \lambda \)-expressions create *hyperintensional* contexts (i.e., necessarily equivalents cannot be substituted within them salva veritate). A context can be both extensional (i.e., allow for substitution of identicals) and hyperintensional (i.e., does not allow for substitution of necessary equivalence) because necessary equivalence does not imply identity in object theory. In particular, \( \Box(p \equiv q) \) does not imply \( p = q \) and \( \Box \forall x(Fx \equiv Gx) \) does not imply \( F = G \) (cf. Myhill 1963).

To see the guiding intuition here, consider the property **being a barber that shaves all and only those who don’t shave themselves** ([\( \lambda x Bx \land \forall y(Sxy \equiv \neg Syy) \)]). Intuitively this is distinct from the property **being a brown and non-brown dog** ([\( \lambda x Dx \land Bx \land \neg Bx \)] even though both properties are necessarily equivalent (i.e., in every possible world, nothing exemplifies them). Property identity in object theory is defined in terms of encoding: \( F = G \equiv \exists y \forall x(Fx \equiv yxG) \). In other words, properties are identical whenever they are necessarily encoded by the same objects. Intuitively, we can tell a story about a brown and non-brown dog without it being a story about a barber who shaves all and only those who don’t shave themselves. Given that these two properties are distinct, they can’t be substituted for one another in every context, though we may be able to infer that anything exemplifying the one exemplifies the other.

For example, the formulas \( \neg Px \land Px \land (q \lor \neg q) \) are necessarily equivalent. From the fact that an object a exemplifies \( \lambda x Px \land (q \lor \neg q) \) and the fact that this property is necessarily equivalent to \( \lambda x Px \land (q \lor \neg q) \) one cannot substitute necessarily equivalents to infer that a exemplifies
\[\lambda x \, Px \land (q \lor \neg q)].^{10}\]

This is all we need to see that 8 and 10 do not imply 11. Suppose for the moment that 10 is necessarily true, and that the properties involved in 8 and 11 are necessarily equivalent.\(^{11}\) This would not justify the inference from 8 and 10 to 11—the \(\lambda\)-expressions create hyperintensional contexts and one cannot substitute necessarily equivalent formulas within those expressions. In words, being such that \(a_{\text{Frodo}}\) was born in the Shire is not the same property as being such that there is a unique abstract object that exemplifies being born in the Shire.\(^{12}\) The inference is simply invalid in object theory.

Thus, 8 doesn’t imply that, in the *The Lord of the Rings*, Frodo is an abstract object born in the Shire, or that some abstract object was born in the Shire. That is, object theory does not imply that it is part of the content of *The Lord of the Rings* that there is an abstract object that . . . exemplifies being born in the Shire. This addresses Klauck’s argument that suggests the ‘wrong kind of object’ problem has returned.

This is an analogous, but innocuous, argument involving description and the object-theoretic translations of implicit parafictional statements. As noted before in section 3, object theory asserts that if a character is native to some story \(s\), implicit and explicit parafictional statements about this character’s properties in \(s\) necessarily follow from one another. Since Frodo is native to *The Lord of the Rings*, 12, which represents (2), follows from 5:

12. \(fS\)

From 7 and 12 we can infer 13 by substituting identicals:

13. \(\varphi(A!x \land \forall F(xF \equiv l[\lambda z Ff]))S\)

Applying the principle *Descriptions* (9b) to 13 gives us the following equivalence:

14. \(\varphi(A!x \land \forall F(xF \equiv l[\lambda z Ff]))S \equiv \exists y(Al y \land \forall F(yF \equiv l[\lambda z Ff]) \land yS)\)

This allows us to derive the following:

15. \(\exists y(Al y \land \forall F(yF \equiv l[\lambda z Ff]) \land yS)\)

15, however, is not problematic. It merely implies that there is a unique abstract object \((a_{\text{Frodo}})\) that encodes being born in the Shire. Abstract objects are precisely the right kind of objects to encode such properties.

### 5.2 Reference to abstracta in parafictional discourse

As noted in section 4, a problem with 8 is that it seems to entail that someone engaged in a discussion of the content of *The Lord of the Rings*, would be licensed to say that in *The Lord of the Rings*, \(a_{\text{Frodo}}\) was born in the Shire. In fact, object theory does not entertain this since 8, even though it is theoretical consequence of the theory, is not expressible in the language of the parafictional data. It is improper to read 8 back into natural language because this would amount to the following unabbreviated sentence being part of natural language:

(16) In *The Lord of the Rings*, the abstract object that encodes exactly those properties that Frodo exemplifies according to *The Lord of the Rings*, was born in the Shire.

(16) includes the technical terms ‘encoding’ and ‘exemplifying’. These notions are part of the underlying intensional logic of object theory that
was designed to disambiguate natural language and, as such, keep separate things that natural language conflates (e.g., the two modes of predication). Hence these technical notions cannot simply be ‘read back’ into natural language. Although (16) could be used by an abstract object theorist engaged in a technical discussion about the abstract objects Frodo and *The Lord of the Rings*, (16) is not part of the natural language data.

At this point the reader may wonder the following: even if (16) is not part of natural language, (3) definitely is. Object theory still implies that the name ‘Frodo’ in the seemingly unproblematic (3) refers to a *Frodo*. Since we are not prompted to imagine anything about abstract objects, explicit parafictional statements should also not make reference to them.

However, this worry is unfounded. It is not problematic for fictional names in parafictional statements to refer to abstract objects. As was discussed in section 3, the internal/external distinction cuts across (explicit and implicit) parafictional discourse and fictional discourse. So, even though it is true that explicit parafictional statements track or ‘echo’ the storytelling practice of fictional discourse – and in this sense are statements that report on what is true in some fiction – parafictional statements like (3) are themselves *non-fictional* statements that involve reference to abstract objects. In parafictional statements, we are no longer pretending to refer. Hence parafictional statements prompt *beliefs* (about abstract objects) whereas fictional discourse (involving pretense) prompts *imagination* (and involves pretend-reference to concrete individuals). The fact that parafictional statements refer to abstract objects does not entail that we are prompted or mandated to imagine anything *de re* about abstract objects.

### 5.3 A *de re/de dicto* ambiguity

Finally, we consider the second problem raised at the end of section 4. The inference from 5 and 7 to 8 shows one can substitute identicals within the encoding claims of object theory. This suggests that (15) follows from (3) and (14). The problem is that there seems to be a reading of these sentences on which the inference is not valid.

Although the formal language of object theory is fully denotational, it has a logic that explains failures of substitutions of co-referring expressions in natural language. The key is to note that the story operator creates a hyperintensional context like those in propositional attitude reports. So to understand how object theory undermines this second problem, we need to review briefly the treatment of such reports in object theory.

Consider a classical example of a failure of substitution, namely, the following inference in natural language:

17. John believes that Bill is happy.
18. Bill is the mayor of the town.
19. John believes that the mayor of the town is happy.

To explain the apparent failure of substitution, object theory distinguishes between a valid *de re* reading of the argument from the invalid *de dicto* reading. On the valid *de re* reading of the inference, all of the individual terms in the argument are analyzed as having their ordinary denotations. If a term is contributing its ordinary denotation to the reading, then substitution of identicals is valid. Specifically, since the name ‘Bill’ and the description ‘the mayor of the town’ only contribute their denotations to the truth conditions of the *de re* reading of the belief statement, substitution is allowed. In object theory this *de re* reading is represented as follows, where *B* represents the belief relation between an individual and a proposition:

16. \[ B(j, Hb) \]
17. \[ b = \exists x Mx \]
18. \[ B(j, H\exists x Mx) \]

Here 16 and 17 imply 18 because substitution of identicals is licensed in every context, i.e. the context created by the belief operator is extensional.

By contrast, on a *de dicto* reading of the inference from (17) and (18) to (19), the individual terms in the argument are analyzed as contributing their *Fregean senses* to the truth conditions of the report. Substitution of identicals in natural language does not hold because the sense of ‘Bill’ and the sense of ‘the mayor of the town’ are not identical. On a Fregean analysis, the identity statement “Bill is the mayor of the town” is true because the terms flanking the identity sign have the same denotation, and it is informative because those terms have different senses. Indeed, on a *de dicto* reading, we may, for simplicity, suppose that all of the terms in the embedded belief report contribute their senses to the truth conditions, including the predicates. Now to represent the sense of a term in object
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theory, one underlines that term. So the de dicto reading of the argument is:

19. $B(j, H b)$
17. $b = \forall x M x$
20. $B(j, H \forall x M x)$

In other words, from the fact that the identity in 17 holds, we cannot substitute the definite description for the name in a context where the name is not contributing its denotation but only its sense (i.e. 17 does not imply $b = \forall x M x$).

This analysis would apply to the story operator if the latter creates a hyperintensional context. The data suggests that it does. For clearly we are addressing the question of why there is a reading of (3) and (14) on which (15) does not follow. Thus, there seems to be a sense of ‘assertion’ for which “In/According to The Lord of the Rings, Frodo was born in the Shire” can be read as “The Lord of the Rings asserts that Frodo was born in the Shire”. This sense of assertion creates a context similar to propositional attitude reports. So story operators create hyperintensional contexts. The object-theoretic analysis, on which stories encode propositional properties, preserves the hyperintensionality of the data. By analyzing (3) as $l[\lambda w S f ]$, the story operator becomes analyzed as an operator that that represents what propositions are asserted in the story.

Since explicit parafictional statements are analogous to propositional attitude reports, the ambiguity between a de re and a de dicto reading of these statements can be resolved. An explicit parafictional statement such as “In/According to The Lord of the Rings, Frodo was born in the Shire” can be read (a) de re, for which substitution of identicals is valid, or (b) de dicto, for which substitution of identicals is not valid. In the de dicto reading, what The Lord of the Rings asserts is sensitive to the senses of ‘Frodo’ and ‘being born in the Shire’. Thus, the argument from (3) and (14) to (15) is valid on a de re reading but not on a de dicto reading. We can derive (15) when (3) is read de re. But this doesn’t follow on the de dicto reading of (3).

The valid de re argument is represented as follows:

5. $l[\lambda x S f ]$

21. $f = \forall x P x$
22. $l[\lambda x S x P x]$

The invalid de dicto argument is represented as follows:

23. $l[\lambda x S f ]$
21. $f = \forall x P x$
24. $l[\lambda x S x P x]$

Thus, the problem is resolved in object by the fact that (3) and (15) are subject to a de re/de dicto ambiguity that is disambiguated by the two formal representations, namely, 5 and 23 for (3), and 22 and 24 for (15).

6 Story entailment

At this point the reader might object that it is too strong to suggest that the story operator creates a hyperintensional environment. It seems like we can sometimes substitute (necessarily) equivalent formulas salva veritate in the context of story operators. For instance, in The Lord of the Rings we encounter the following statement (after one of its characters, Bilbo, mysteriously vanished into thin air at his own party):

(20) Frodo was the only one present who had said nothing.

Hence it is parafictional data that:

(21) In The Lord of the Rings, Frodo is the only one that was present (at Bilbo’s party) who had said nothing (when Bilbo disappeared).

13For most purposes, the de re reading of (3) and (15) suffice. The de re reading usually captures the normal understanding of these sentences, just as for most purposes, the de re reading of belief statements suffices. But in contexts where substitution of identicals is relevant, the de dicto readings are necessary.

14Note that the definite description ‘the one that was present (at Bilbo’s party) who had said nothing (when Bilbo disappeared)’ denotes nothing. Hence, in what follows, when we represent the description formally, we interpret the description as ‘the one who, in The Lord of the Rings, was present and who said nothing’. Thus, in the formal representation, we include the story operator right after the description operator: $\forall x (l[\lambda w (P x \land \neg S x)])$; see Zalta 1983, p. 126.
The de re reading of this is:15

25. \( t[\lambda w \; f = t x (t[\lambda w \; (P x \wedge \neg S x)])] \)

Independently, given the theory of descriptions, the following is equivalent to (20):

(22) There is a unique thing that was present and said nothing, and something that was present and said nothing is identical to Frodo.

Formally, we can represent the equivalent of (20) and (22) as:

26. \( f = t x (t[\lambda w \; (P x \wedge \neg S x)]) \equiv \exists y (t[\lambda w \; (P x \wedge \neg S x)] \wedge \exists y (t[\lambda w \; (P x \wedge \neg S x)] \wedge f = y) \)

It seems perfectly reasonable to infer from (21) and the equivalence of (20) and (22) that:

(23) In The Lord of the Rings, there is a unique thing that was present and said nothing, and something that was present and said nothing is identical to Frodo.

even though this was never stated in this form in the story itself. The de re reading of this claim is:

27. \( t[\lambda w \; \exists y (t[\lambda w \; (P x \wedge \neg S x)]) \wedge \exists y (t[\lambda w \; (P x \wedge \neg S x)] \wedge f = y)] \)

In object theory, one can derive 27 from 25, but not by substituting the equivalent formulas in 26, but rather by another means. It is important to indicate what this means is, since it yields an important source of truths in the story.

Such de re inferences are valid in object theory because (20) relevantly implies, i.e., ‘story-entails’, (22); see Zalta 1988a, p. 124. If we use \( R \) to indicate relevant or story entailment, then this last fact can be represented as:

16In the \( \lambda \)-expressions used in 25 and in the subsequent formal representations 27 and 28, the identity sign ‘=’ should, strictly speaking, either be read as the relation of E-identity (=E) as defined in object theory or be indexed to ‘t’ so that it represents the identity relation relative to The Lord of the Rings (=i). As mentioned in footnote 12, ‘\( x = y \)’ is defined in object theory and its defining has encoding subformulas – one cannot form \( \lambda \)-expressions with encoding subformulas, as these can lead to paradox. But one can form \( \lambda \)-expressions with either =E or =i, as these are not identity relations that relate every object whatsoever to itself. Instead \( x =E y \) holds just in case \( x \) and \( y \) are both ordinary objects and necessarily exemplify the same properties. And \( x=i y \) holds between \( x \) and \( y \) just in case \( x \) and \( y \) are characters of The Lord of the Rings and, according to the story, \( x \) and \( y \) are identical.

28. \( f = t x (t[\lambda w \; (P x \wedge \neg S x)]) \overset{R}{\Rightarrow} \exists y (t[\lambda w \; (P x \wedge \neg S x)] \wedge \exists y (t[\lambda w \; (P x \wedge \neg S x)] \wedge f = y) \)

Object theory employs the principle that if \( p \) is true in story \( s \) and \( p \) story-entails \( q \), then \( q \) is true in \( s \), and this principle, given 28, is what legitimates the inference from 25 to 27.

What is story-entailed is determined by what an ordinary reader of the story would say the story implies, i.e., every proposition stated in a physical copy of the story (or uttered in a storytelling) plus all the relevant consequences of those propositions.16 This is what the story ‘asserts’ – what is true in or part of the content of the fiction – and hence this determines the available parafictional information. So storytelling practices, or fictional discourse, should be construed more broadly than as consisting solely of sentences that have been written down by some author or uttered in a storytelling. Inferences made by readers while engaging with a fictional narrative (e.g., a reader’s inference that there was one person present at Bilbo’s party who did not say anything and it was Frodo) supplement the storytelling. Hence they also involve pretend reference (e.g., the reader’s inference involves the same pretend reference to a flesh and blood hobbit as the fictional statement (1)).17 This analysis is consistent with the idea that, just as writing fiction involves pretense on the side of the author (they pretend that what they write down is true fact), reading fiction also involves pretense on the side of the reader (they pretend that what they are reading is a description of real events).

Parafictional statements track the storytelling practice in general; they are reports on what the story asserts, where ‘asserting’ is understood in a broad sense. Formulas concerning story-entailments such as 28 track a particular part of the storytelling practice; they are reports on the ‘story-entainment practice’, i.e., they track the inferences that ordinary readers make while engaging with fictional narratives. Assuming that someone

16Unreliable narration complicates this picture since not all stated propositions should be taken at face value. We assume that an ‘ordinary’ reader takes into account this and other complicating factors when drawing inferences about what a fictional narrative implies. See also Friend (2017) who argues against the (common) analysis on which fictional truths can be inferred from the statements given in the fictional narrative.

17This means that sentences such as (2) that are not a verbatim part of the fictional narrative can be both implicit parafictional statements (when uttered in subsequent discourse) as well as fictional statements (when part of the inferences made while reading The Lord of the Rings).
who reads (20) would in fact conclude (22), we are licensed to infer the parafictional data (23). And, as we saw earlier, the formal representations of this data preserves this inference: 25 and 28 imply 27.

It is for this reason that object theory preserves the inference from:

(3) In *The Lord of the Rings*, Frodo was born in the Shire.
(24) In *The Lord of the Rings*, Frodo is a hobbit.
(25) In *The Lord of the Rings*, Hobbits are flesh and blood creatures.

...to

(26) In *The Lord of the Rings*, a flesh and blood object was born in the Shire.

given that the following three propositions:

- Frodo was born in the Shire.
- Frodo is a hobbit.
- Hobbits are flesh and blood creatures.

relevantly imply (i.e., story-entail):

Some flesh and blood creature was born in the Shire.

But the first three propositions do not relevantly entail propositions necessarily equivalent to the fourth, such as: some flesh and blood creature was born in the Shire and either the sun is shining or it is not. Object theory, therefore, does not imply that this last proposition is true in the story. The formal representations of (3), (24), (25), and (26) are analogous to the ones provided in the previous case and so we omit them here.\(^{18}\)

7 Conclusion

In this paper, we have defended the object-theoric approach to fictional names against Klauk’s charge that it is subject to the ‘wrong kind of object’ problem. In doing so, we’ve seen that it provides a uniform semantic treatment of fictional names across parafictional and metafictional statements. In our defense of object theory, we’ve developed three main points.

First, although 8 can be derived in object theory, it is not problematic; it doesn’t attribute inappropriate content to *The Lord of the Rings*. Nor does reference to abstract objects in parafictional statements require us to imagine anything about abstract objects. Second, story operators create hyperintensional contexts similar to those in propositional attitude reports. Hence on a *de dicto* reading of explicit parafictional statements we cannot derive statements such as (15). Third, we cannot derive the problematic 11 since we cannot substitute necessarily equivalent propositions within hyperintensional contexts created by story operators, though we can infer that propositions relevantly implied or story-entailed by propositions true in the story are also true in the story.

References


\(^{18}\)By contrast, the key formal representations 8 and 11 are not the counterparts of parafictional data; they are simply theoretical facts about abstract objects that can be derived from the representations of the parafictional data.


