



Nonexistent Objects and Their Semantic and Ontological Dependence on Referential Acts

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Abstract

This paper argues for a distinction between fictional characters, as parts of intentionally created abstract artifacts, and intentional objects, as nonexistent objects generated by referential acts that fail to refer. It argues that intentional objects as the nonexistent objects of imagination and other objectual attitudes are well-reflected in natural language, though in a highly restricted way, reflecting their ontological dependence on referential acts. The paper elaborates how that ontological dependence can be understood.

Keywords Existence · nonexistent objects · fictional objects · intentionality · ontological dependence

1 Introduction

Imagination, it appears, can be about things that do not exist, and so can attitudes like belief and thought, as well as linguistic acts of reference (Brentano (1874) [1911]). Imagination may seem different from belief and reference in that it need not be directed at reality at all. However, when imagination is not directed at reality, it involves reference in the form of pretend reference. Attitudes can involve apparently nonexistent objects either because they fail to refer to real objects or because they involve referential acts under pretense. I will call the two sorts of referential acts ‘quasi-referential acts’.

There are different views on apparent nonexistent objects involved in imagination and other attitudes. Some philosophers deny that there are objects of imagination and thought that fail to exist. Others take them to be merely possible objects. Yet others take them to be ontologically dependent on intentional acts or states.¹ This paper will argue that our linguistically manifest intuitions support the third view, and

it proposes particular ways of elaborating that view. In particular, it will argue for the following points:

- [1] The semantics of natural language involves nonexistent objects, however, in a highly restricted way, as entities strictly dependent on intentional states or acts that involve pretend or unsuccessful acts of reference, that is, quasi-referential acts.
- [2] Natural language reflects a distinction between intentional objects that have the status of non-existents and objects that are fictional characters, a distinction not generally made in the literature. The distinction will be construed as a difference in ontological dependence between entities and quasi-referential acts and entities dependent also on an intention of creating a piece of fiction, of which fictional characters are parts. On this view, thus, intentional, nonexistent, objects are conceived as objects generated by quasi-referential acts, whereas fictional characters are parts of pieces of fiction and thus generated also by the intention to produce that fiction.

¹ The second and third view are both Meinongian views (Meinong 1904).

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2 Intentional Objects and Fictional Objects

I will call ‘intentional objects’ the objects of acts of imagining, conceiving, thinking about, referring to, describing, mentioning, intending when they fail to exist. Intentional

objects are thus nonexistent objects, but unlike merely possible objects, they are objects relating to mental states or acts.

Intentional objects are furthermore to be distinguished from fictional objects, a distinction that has generally not been made in the literature. Fictional objects are parts of fictions, abstract artifacts intentionally produced by an agent. As parts of fictions, fictional objects are themselves abstract artifacts, and as such they have the status of existent objects. By contrast, intentional objects have the status of nonexistent objects. They are non-intentionally generated by quasi-referential acts, unsuccessful acts of reference or pretend acts of reference.

The difference between intentional objects and fictional characters is reflected semantically in different intuitions about the truth conditions of existence statements, namely the intuition that sentences such as (1a) are true, in contrast to (1b), which involves an intentional object, and is clearly false:²

- (1) a. The fictional character Anna Karenina exists.
- b. The woman described in the novel ‘Anna Karenina’ does not exist.

The very same work of fiction in fact gives rise to both the intentional object and the fictional character.³

Without the nominal *fictional character* making clear that reference to a fictional character is intended, as in (1a), the default option with a simple fictional name, as in (2), is reference to an intentional object, which does not permit the attribution of existence:

- (2) Anna Karenina exists.

Unlike (1a), (2) is generally judged as false.

I take both intentional and fictional objects to be ontologically dependent on intentional acts, more precisely, quasi-referential acts, whereby ontological dependence is to be understood as a generating relation, rather than as a causal relation (Irmak 2021). This allows the following account of the difference between intentional objects (which do not exist) and fictional objects (which do exist) (Anna Karenina as an intentional object and Anna Karenina as a fictional character). A piece of fiction about a single entity generates two ‘distinct’ entities, an intentional object and a fictional

object. The intentional object is generated by mental acts of pretend referring and predicating. The fictional character, by contrast, is generated in addition by a mental state of intending a fictional character as part of a story. When producing a piece of fiction, an agent engages in pretend acts of referring and predicating as well as in realizing an overall intention of producing the piece of fiction, an abstract artifact. Intentional objects are generated only by the former, fictional characters are part of story the author intends to produce and as such are abstract artifacts like the story, with a status as existent just as much as the story itself. The generating base for the intentional object is thus smaller than for the fictional character. In the case of (1a), it is the intentional act of the speaker that goes along with the use of the nominal *fictional character* that will also be part of the generating base and thus help generate an entity that has the status of a fictional character. Fictional characters depend not only on unsuccessful or pretend acts of reference, but also on the intention of creating a piece of fiction. Intentional objects thus are non-intended ‘products’ generated by quasi-referential acts, whereas fictional characters are parts of intended products, the piece of fiction.⁴ Fictions often become objects in the public domain, and so do fictional characters as parts of fictions.

3 The Role of Objects and of Intentional Objects in the Semantics of Natural Language

The view that I will defend is that intentional (and fictional) objects play a significant role in the semantics of natural language, but not as objects that come for free: they require the presence of mental or linguistic acts in the semantic structure of the sentence. They are ontologically and semantically dependent on the act that aimed to or pretended to refer to it. They are thus not merely possible objects (Priest 2005; Berto 2008) or objects individuated in terms of combinations of properties (Zalta 1988).⁵ Merely possible, non-actual objects should be available semantically even in the absence of a referential act in the semantic structure of the sentence. The same holds for objects individuated in terms of combinations of properties. The fact that intentional objects require the presence of quasireferential acts in the

² I take *exist* to be a predicate. This is linguistically obvious, but has also been defended by philosophers such as Miller (1975), Salmon (1998), Priest (2005) and others.

³ Note that *object of fiction/imagination* can act as a modifier of the existence predicate, setting up a different mode of being, as in *The woman described in the novel exists only as an object of fiction / as an object of the author’s imagination*.

⁴ Of course, a fictional character can lead to further non-intended products, for example the singleton set containing it.

⁵ The present view of intentional objects as dependent on referential acts bears similarities to that of Fine (1982) and McGinn (2000). Fine takes fictional objects to be existence-dependent and identity-dependent on the narrative act (he does not distinguish fictional objects from nonexistent, intentional objects). McGinn takes nonexistent objects to be obtained from failed acts of reference, without, though, specifying how such objects are able to bear properties.

semantic structure of the sentence reflects their ontological dependence on those acts.

In standard compositional semantics, the notion of an object plays a central role. On a widely accepted view, referential NPs stand for objects, and predicates apply to objects. This view is particularly manifest in Frege's (1884, 1892) syntactic definition of an object, according to which an object is what a referential NP (a 'name') may stand for. Moreover, notions such as coreference, subject matter and implicit arguments presuppose the notion of an object. Given the Fregean view, whether something is an object is thus determined by the syntactic structure of language itself.

Given that criterion, the notion of an object will be a broad one, comprising a great range of derivative entities, shadows, mistakes, problems, difficulties, as well as what is denoted by nouns like *book* and *window*, with their apparent polysemies. Philosophers and linguists (including Chomsky 1986) reject such a generous domain of objects generally on the basis of particular assumptions about what is real, often adopting the assumption that reality is just a mind-independent realm filled with objects meeting standard conditions on individuation. Given more recent developments in contemporary metaphysics regarding ontological dependence, mind- and function-dependent individuation, notions of variable objects, and more generally plenitudinous conceptions of reality, there are now responses available that make sense of apparently implausible sorts of entities that the Fregean, language-dependent notion of an object requires. The notion of an intentional object that fails to exist, though, has given rise to hesitations even among philosophers that otherwise would be happy to accept a broader range of objects within a more permissive conception of reality.⁶

The same criteria, however, show that intentional objects play a role in the semantics of natural language, though in particularly restricted contexts. More specifically, intentional objects play a role in the compositional semantics of certain constructions with intentional verbs (*imagine*, *conceive*, *think about*, *refer to*, *mention*, *intend*).⁷ This is not so for standard examples discussed in the literature, namely sentences with intentional verbs taking indefinites as complements:

- (3) a. Mary imagined a blue rock / a round circle.

⁶ See, for example, van Inwagen (2000, 2008) for a critical view.

⁷ Intentional verbs need to be sharply distinguished from intensional transitive verbs, such as *look for*, *need*, *owe*, *own*, *lack*. The latter involve a particular unspecific reading (Zimmermann 2001, 2005; Moltmann 1997) and they need not involve an intentional act or state, unlike the former. Intentional verbs may involve specific or generic arguments that have the status as nonexistent objects of thought (Moltmann 2015). This paper focuses on intentional verbs and addresses connections to intensional transitive verbs only in the last section (Sect. 8).

- b. Mary imagined something.

Such sentences themselves do not require nonexistent intentional objects. For (3a), there are plausible alternative analyses on which indefinite NPs contribute higher-order values (properties or concepts) or parts of complex predicates to the compositional semantics of the sentence. This goes along with a common view on which quantifiers like *something* as in (3b) are regarded as higher-order or substitutional quantifiers (Sainsbury 2005).

There are constructions in natural language, though, that require intentional objects for their compositional semantics (Moltmann 2013, 2015). These are first complex noun phrases (NPs) modified by a relative clause with an intentional predicate and second anaphora relating to complements of intentional verbs. An example of the former was already given in (1b). Here are examples illustrating both phenomena:

- (4) a. The castle John is imagining is small, but nice. It is definitely not grand.
 b. The mathematical object that John imagined is impossible. It is both round and square.
 (5) a. The castle that John is imagining does not exist.
 b. The mathematical object that John is imagining cannot possibly exist.

The compositional semantics of *the castle John is imagining* can hardly be given without positing an object as an argument of *imagine*, which the entire NP then can stand for. Suppose that *imagine* in (4a) likewise just combines with a predicate *castle*. But then, the entire NP *the castle John was imagining* would stand for a property. But a property cannot be said to be small and not grand, as in (4a). In addition, the subject NPs in (5a) would be property-referring. However, properties do not fail to exist. Instead, the subject NPs in (4a, 5a) need to stand for entities able to bear properties like being small, not grand etc. and that fail to exist. Intentional objects are meant to be suited for just those semantic roles.

There are also difficulties treating subject NPs in true negative existential sentences as being merely empty terms, as argued, for example, by Salmon (1998):

- (6) The king of France does not exist.

On Salmon's (1998) view, the negation in a negative existential as in (6) is external negation, just like the negation in (7), which is naturally followed by a *because*-clause:

- (7) The king of France is not bald, because there is no king of France.

But this is problematic. Paying closer attention to the linguistic aspects of the sentence (7) itself, it is apparent that (7) involves a particular intonation, namely a focus on *not*, rather than, as with ordinary negation, the predicate. By contrast, in a negative existential as in (6), it is the predicate that is focused. That is, negative existentials are not cases of ‘metalinguistic negation’ in the sense of Horn (1985). In addition, with quantificational subjects, external negation, that is, negation taking widest scope, cannot be attested, unless *not* is strongly focused:

- (8) a. Everyone we talked about does not exist.
 b. At least two people we talked about do not exist.

The treatment of negation in negative existentials as external negation also has difficulties with exception sentences:

- (9) Everyone we talked about except Anna Karenina exists.

Except in (9) involves negation, but that form of negation can hardly be considered external negation.

Thus, there are serious linguistic difficulties treating NPs not referring to actual objects as standing for nothing or for concepts.

4 Restrictions on Intentional Objects in Semantics: Dependence on an Intentional Event or Act

Intentional objects do not come for free, neither ontologically nor semantically. They depend on the description of a quasi-referential act in the sentence, or at least an implicit reference to such an act. The observation is that not every non-referring description ‘generates’ an intentional object, as the contrasts below make clear:

- (10) a. ?? The church in the village does not exist.
 b. The church *mentioned* in the guide does not exist.
 (11) a. ?? There is a house that does not exist.
 b. There is a house John *described* that does not exist.
 (12) a. ??? Mary talked to a man that does not exist.
 b. Mary *described* a man that does not exist.

While both the a-examples and the b-examples are grammatical, the a-examples could at best be acceptable when they implicitly relate to someone’s mentioning the church, house, or man.

Verbs like *mention*, *describe*, and *refer to* are intentional verbs that describe acts that may be quasi-referential acts or involve quasi-referential acts as parts. Their description of a quasi-referential act in (10)–(12) by the verb in the relative clause enables the sentences to be true. Of course, both (10a) and (10b) are grammatical. But in order for (10a) to be semantically acceptable and to be able to be true or false, the speaker must have at least intended to resume a referential act of a different agent for the use of the subject *the church in the village*. Thus, (10a) may be acceptable when preceded by an utterance of “the guide says that the village has a church”. In that case, it is plausible that (10a) involves an elided relative clause such as *which the guide mentioned*. I will come to the semantic analysis of intentional relative clauses shortly.

Not only intentional verbs in relative clauses, but also adjectival passives and intentional adjectives, enable reference to intentional objects:

- (13) a. The *imagined* / *imaginary* church does not exist.
 b. The *mentioned building* does not exist.

Intentional modifiers of this sort will themselves take intentional acts or states as arguments. The modifiers in fact may themselves be viewed as reduced relatives and thus have the same semantics as the previous examples, or else they will be on a par with non-intersective adjectives such as *possible* and *fictional*.

There are well-discussed cases of negative existentials in which subject NPs stand for nonexistent objects without containing an intentional modifier:

- (14) a. The golden mountain does not exist.
 b. Pegasus does not exist.

There are good reasons, though, to take these cases to involve implicit reference to quasi-referential acts as well, more precisely implicit reference to a chain of preceding quasi-referential acts involving versions of the same name or description.⁸ That is because descriptions or names not associated with such a chain of preceding quasi-referential acts are not acceptable as subjects of true negative existentials:

- (15) a. ??? The blue apples in this room do not exist.
 b. ??? Mumu does not exist.

⁸ See also McGinn (2000), who argued that apparently empty terms in negative existentials stand for intentional, nonexistent objects, in roughly the present sense, as entities constituted by failed intentionality.

The reason such NPs cannot act as subjects of negative existentials is that they cannot stand for intentional objects, which in turn depend on the presence of a referential act associated with the use of the sentence.

One notion that will be important for the ontology and semantics of intentional objects is the notion of coordination, as (primarily) a relation among referential acts. Roughly, two referential acts are coordinated just in case they are meant to refer to the same entity. Coordination applies to both successful and unsuccessful referential acts. It also applies to pretend acts of reference: two acts of pretend reference are coordinated just in case their agents pretend to refer to the same thing. I take the notion of coordination among referential acts to be a primitive, subject to the following condition:

- (16) If two referential acts e and e' are *coordinated* and e and e' are / were to be successful, then there is / would be an entity d such that e and e' refer / would refer both to d .

The notion of coordination as a relation among referential acts provides a semantics of coordination as a relation among occurrences of NPs, in the sense of Fine (2007). Let's call this F-coordination ('Finean coordination') to distinguish it from syntactic coordination of NPs with *and* or *or*. Then, we have a semantics of F-coordination along the following lines:

- (17) For a literal utterance of a sentence S containing F-coordinated occurrences of NPs X_i and Y_i , the utterance of S is true or false only if the speaker intends to refer to the same thing with the utterance of X_i and the utterance of Y_i .

Thus, coordination among referential acts constitutes the content of F-coordination as a relation among referential NPs. The two sorts of coordination play a role both in the constitution of intentional (nonexistent) objects and for the semantics of anaphora in intentional contexts. In true negative existentials such as (14a, b), the intentional objects depend on a chain of coordinated preceding quasi-referential acts.

- (14) a. The golden mountain does not exist.
b. Pegasus does not exist.

The question arises what, if any, semantic role should those quasi-referential acts play? Should they be associated with a syntactic position, be considered implicit arguments or be assigned entirely to pragmatics?

Concerning the case in (14b), there are good reasons to relativize the semantics of proper names to referential acts in general, more precisely to chains of coordinated referential acts. Following Kripke (1972), names have been regarded directly referential. That is, they refer not in virtue of an associated description, but in virtue of a chain of previous coordinated uses of the name originating in a causal connection to the bearer (baptism) or the association of an (empty) definite description (for fictional names). Given that view, the interpretation of a name should best be relativized to such a referential chain.⁹ Without elaborating the formal semantics of names in much detail, let us just assume that a name is to be evaluated with respect to both an utterance context u and a referential chain e :

- (18) For a name N , for an individual d and a chain e of coordinated referential uses of N , $[N]^{<u, e>} = d$ iff the referential acts making up e either refer to d or, if they are quasi-referential acts, generate d as an intentional object.

This then will yield a unified semantics of names on a referential and quasi-referential use.

(18) raises a formal semantic issue, namely, not every expression in the same sentence in which a name N occurs should be evaluated with respect to the same referential chain e . Here is a way of how the relativization to a referential chain can ultimately be understood: Let us assume that u is just the utterance of the sentence in question. Then the proposal will be that every constituent X of a sentence evaluated with respect to an utterance u will strictly be evaluated only with respect to the part of u that is the utterance of X . When X is a name, then the part u' of u that is the utterance of X may be coordinated with the acts of a referential chain e , and it will be the acts that make up e that will be constitutive of the semantic value of N if u' is not a successful referential act.

Definite descriptions in negative existentials exhibit the same constraint as names. Definite descriptions in negative existentials are appropriate only insofar as their use is coordinated with a relevant previous quasi-referential use of the same description.¹⁰

⁹ See Parsons (1980) for a similar view.

¹⁰ In the philosophical literature, sentences are discussed that involve an attributively used description in a negative existential, as in *The largest natural number does not exist*. This sentence seems to me to be subject to the same condition involving a previous quasi-referential act (though perhaps one accommodated in the context). Rather than taking them be quantifiers in the Russellian fashion, attributively used definite description may be analysed as involving a referential act referring to anything meeting the descriptive content while presupposing that there is a unique such thing.

- (19) a. Mary's child does not exist.
 b. The tree in the square does not exist.

(19a) cannot just be used to state that Mary does not have a child, and (19b) cannot be used to state that the square does not have a tree. Rather someone must have tried to refer to 'Mary's child' or 'the tree in the square' previously. Such definite description will thus not be empty, but stand for an intentional object obtained from a chain of preceding contextually given quasi-referential acts. With definite descriptions, the entire definite description, not a single noun, will have an interpretation relativized to a chain of coordinated quasi-referential uses. Let us thus assume that definite descriptions in subject position may also have an interpretation relating to a chain of preceding quasireferential acts. Then we have a semantics of definite NPs in subject position along the following lines:¹¹

- (20) For a definite description *the N'*, for an individual *d* and a chain *e* of coordinated referential uses of *X*, [*the N'*]^{<u, e>} = *d* iff *d* ∈ [*N'*]^u, whereby there is no other *d'*, *d'* ∈ [*N'*]^u, or if *e* consists of quasi-referential acts which generate *d* as an intentional object.

The question now is, where do such referential chains come from that are involved in the interpretation of the subject of negative existentials? I will not try to give a very satisfactory answer. Rather one may assume that the position in the left periphery of a sentence that can be occupied by an adverbial like *according to the story* can also be used for a silent element enabling implicit reference to a chain of coordinated referential acts.

The semantic requirement of an intentional modifier or an implicit previous chain of quasi-referential acts supports the view that intentional objects are entities 'generated by' unsuccessful or pretend referential mental or linguistic acts (or states). Such intuitions are unaccounted for on a view on which the subject of negative existentials such as (14a, b) is empty and negation is understood as external negation (Salmon 1998), unless it is supplemented by conditions on previous name-using practices (Sainsbury 2005). Note also that this account would not carry over to 'empty' definite descriptions as subjects of negative existentials.

There is yet further support for the semantic dependence of intentional objects on intentional acts. That is that implicit arguments cannot be non-existents. Given Davidsonian

event semantics, events are implicit arguments of verbs (Davidson 1967). However, Davidsonian event arguments cannot be nonexistent. Thus, (21a) cannot have the interpretation given in (21b):

- (21) a. John did not walk.
 b. There is a particular planned walk John failed to do.

Davidsonian event arguments are not connected to a referential act or an intentional predicate and thus could not obtain the status as nonexistents. Also, if the verb *to rain* takes a location as an implicit argument, a speaker can hardly refer to a particular fictional location with the utterance of *it rained*, meaning that it rained there. Note, though, that reference to nonexistent objects is possible with relational nouns:

- (22) There is one remarkable fact about the (nonexistent) woman John read about. Her *passport* is said to be French.

But here the internal argument of the relational noun, the passport holder, is an individual already introduced through a quasi-referential act in the previous sentence.

5 An Abstractionist Account of Intentional Objects

Let us now turn to the task of making the ontological and semantic dependence of intentional objects on intentional states or acts explicit formally.

I will start with an account of the individuation of intentional objects. Let us, simplifying, assume that an intentional state of imagination or a complex act of description consists of combinations of referential and predicational acts, with referential acts possibly being coordinated. That is, such an intentional state or act will consist of acts of the form *a(P)* (*r*), where *a(P)* is an act of attributing the (nuclear) property *P* to what *r* is meant to refer to. Let us further make a distinction between 'having' a property and 'holding' a property, following Parsons (1980), and adopt their distinction between nuclear properties (which are 'held') and extranuclear properties (which are 'had'). Intentional objects have extranuclear properties such as existing, being intentional objects etc. But they do not 'have' nuclear properties such as being a horse, being red etc., but rather they 'hold' such properties, the properties being the sorts of properties attributed to them in the intentional state or act. Intentional objects are obtained from or generated by intentional acts

¹¹ Definite descriptions in true negative existentials might be assimilated to mixed quotation, which likewise relate to a previous utterance of the expressions (*Mary does not 'reside' in Germany, she lives there*). Mixed quotations, though, still retain their ordinary semantic denotations.

or states involving quasi-referential acts on the basis of the conditions of the following sort:

- (23) For an intentional state or act e , d is an intentional object generated by e ($\text{INT}(e, d)$) iff d depends for its existence on a quasi-referential act r that is part of e , and d holds a property P just in case the following is the case: for the act, $e a(P)(r)$, the act of predicating P of what r is meant to stand for, $a(P)(r)$ is part of e or $a(P)(r')$ is part of e for a referential act r' coordinated with r .

This is thus the sense in which intentional objects are abstractions from the coordinated quasi-referential acts that are parts of complex intentional states or acts. The so obtained intentional objects do not as such *have* the properties attributed in the intentional state or act, but obtain them derivatively, so that they will just ‘hold’ those properties. Given that there is no actual object to which the properties could have been successfully attributed, the objects won’t qualify as existing.

The intentional acts on which intentional objects depend can be composed with further intentional acts, as well as with intentional states or acts by another agent. This will go along with expanding or even modifying a given intentional object.

6 The Semantic Dependence of Intentional Objects on Acts

On the view given in the previous section, intentional objects belong to the domain of entities D_e generated by the intentional act or state e . The following is a proposal of how such a domain is made accessible semantically. I will make use of Davidson’s (1967) event semantics. This means that a verb like *describe* denotes a relation between events, agents, and actual or intentional objects. The intentional objects are precisely those generated by the Davidsonian event argument, of course. They are available only given a suitable semantic presence of the Davidsonian event argument.

Let us then distinguish different domains of entities that include intentional objects and depend on particular intentional acts or states. Two sorts of domains of entities will be distinguished. First, there is the ordinary domain D_u of entities associated with the utterance u of the entire sentence, the domain of actual entities. Second, for each intentional act or state e in D_u , there will be an associated domain D_e of intentional objects dependent on e . Thus, an act of imagination e generates a (possibly empty) domain D_e of intentional objects dependent on e . The denotation of an existence-entailing predicate is a subset of D_u . By contrast,

the denotation of a non-existence-entailing, intentional predicate X involves both D_u and D_e for a Davidsonian event argument e of X . Thus, the following condition holds for the extension of *imagine*:

- (24) For an event e , such that for entities d and d' , $\langle e, d, d' \rangle \in [\textit{imagine}]$, then $d \in D_u$ and $d' \in D_e \cup D_u$.

For an existence predicate X , a distinction between the positive extension X^+ of X and the negative extension X^- of X needs to be made. The conditions in (25a, b) then obtain for the extension of *exist*; furthermore, the condition in (25c) holds for the truth of a negative existential with a referential NP as subject:

- (25) a. If for an entity d , $d \in [\textit{exist}]^{+ \langle u, e \rangle}$, then $d \in D_u$.
 b. If for an entity d , $d \in [\textit{exist}]^{- \langle u, e \rangle}$, then $d \in D_e$.
 c. NP *does not exist* is true iff $[\textit{NP}] \in [\textit{exist}]^{- \langle u, e \rangle}$.

The remaining task to address now is the semantic analysis of NPs modified by relative clauses with intentional verbs, as in (5a), repeated below:

- (5a) The castle John is imagining does not exist.

The noun *castle* in (5a) cannot be interpreted in the position in which it appears overtly, as head of the relative clauses. Otherwise, it would have to be interpreted with respect to D_u . Rather, it needs to be interpreted within the scope of the event quantifier associated with *imagine*, so that its denotation will come from $D_e \cup D_u$, for an event of imagination e . This is possible through an analysis of relative clause, on which the head noun originates inside the relative clause, as in (26a) (Cinque 2020). If the underlying structure with the noun in the lower position is interpreted, this permits the interpretation given in (26b):

- (26) a. [the e [John is imagining [e [castle]]]].
 b. $\lambda x[\exists e(\textit{imagine}(e, \textit{John}, x) \ \& \ \textit{castle}(x))]$

Given (26b), if John’s imagination is directed toward an actual castle d , then *castle* is predicated of d in the regular way. If John’s imagination e is not directed toward an actual castle, then the argument of *imagine* will be an intentional object d in the domain D_e . In that case, ‘*castle*(d)’ means d ‘holds’ (rather than ‘has’) the property conveyed by *castle*. Note that the meaning of *castle* in the two cases should be the same, it just enters different relations to an object of predication: ‘having’ and ‘holding’.

7 The Importance of Coordination as a Relation Among Referential Acts

Coordination among referential acts plays not only a role in identifying the acts on which an intentional object depends. It also plays an important role for anaphoric reference to intentional acts. An intentional object may be ‘resumed’ by a subsequent intentional act meant to (pretend to) refer to the same object:

- (27) John imagined *a castle* and then he imagined that *it* was near another castle.

The relation of coordination in the two cases is exactly the same relation of coordination among quasi-referential acts, one act meaning to (pretend) refer to the same object as another. It matches Fine’s (2007) notion of coordination, but it is a relation among linguistic or mental acts, rather than occurrences of expressions. Thus, in (27), a quasi-referential act that is part of the imagination reported in the first conjunct is coordinated with a quasi-referential act associated with the pronoun in the second conjunct.

For an intentional object *d* introduced by a quasi-referential act *e*, it is more important for a subsequent act to refer to *d* to be coordinated with *e* than to preserve the same properties attributed to *d* in *e*

- (28) John imagined a white castle first on a hill, then he imagined it to be in a valley.

Coordination of acts is also relevant for the semantics of anaphora in discourse involving *intentional identity* (Geach 1967), on a view on which intentional identity involves shared intentional objects in the present sense:¹²

- (29) John and Mary were talking about their future home. John imagined that their future home would have a garden. Mary imagined that it would also have a swimming pool.

In intentional identity cases, coordination of mental or linguistic acts may be indirect. Thoughts can be coordinated, for example if they are directed toward a common source (Edelberg 1986, 1992). An example is given below, which is analogous to Hob-Nob-sentences with belief:

¹² There are alternative analyses of intentional identity sentences, which do not make use of intentional objects, see in particular Sandgren (2019). I will leave it with the suggestion about conditions on the coordination of referential acts in cases of intentional identity. The topic itself requires much further discussion in order to be treated satisfactorily, which I will leave for another occasion.

- (30) Looking at the empty picture frame. Mary thought that someone must have stolen the painting. John thought he must have stolen other paintings as well.

Thus, intentional objects may be ontologically dependent on coordinated quasi-referential acts of the same or of different agents.

8 Intentional and Intensional Verbs and Direction of Fit

I have so far focused entirely on intentional verbs, such as *imagine*, *think about*, *refer*, *describe*, *talk about*. Intentional verbs differ semantically from intensional verbs such as *need*, *look for*, and *want* (Moltmann 2015). The latter do not take intentional objects as arguments, but rather higher-order semantic values, such as properties (Zimmermann 2001) or intensional quantifiers (Montague 1970; Moltmann 1997).

In this final section, I will make some remarks about semantic connections between the two types of verbs and point out a complication arising for the semantics of the intentional verb *imagine*.

Intensional verbs such as *need*, *look for*, and *want* describe acts or attitudinal objects with a world-to-word direction of fit: a need or search requires the world to be in a certain way for it to be satisfied.¹³ Intentional verbs on a pretense use do not involve any direction of fit. Two kinds of imagination in fact can be distinguished: pure imagination and reality-directed imagination. Pure imagination is illustrated in (31a), reality-oriented imagination in (31b):

- (31) a. John imagined the kind of country he wants to live in.
b. Mary imagined the country she was going to visit.

Reality-directed imagination involves a combination of a successful referential act and various pretend property attributions. Reality-directed imaginations come with a word/mind-to-world direction of fit and thus have accuracy conditions:

- (32) Mary’s imagination of that country was accurate / correct.

Pure imaginations fail to have a direction of fit, in particular, they fail to have conditions of representational accuracy.

¹³ Searches, desires, imaginations, and thoughts may be considered attitudinal objects in the sense of Moltmann (2019).

The object of pure imaginations, by definition, cannot be an actual object. Now one might think that this should be different for reality-directed imagination: the object of a reality-directed imagination should just be the actual object the imagination is about. However, reality-directed imagination may still involve intentional objects distinct from the object they are about. This can be seen from the possibility of the following being true:

- (33) The country Mary had been imagining was quite different from the country she actually experienced.

The compositional semantics of (33) involves not just the actual country the imagination is about, but also an object of imagination that is based on that country, yet distinct from it in that it ‘holds’ different properties. The reason for that is that reality-directed imagination involves referential acts and pretend property attributions and these together generate an intentional object to be distinguished from the actual object the imagination is about.

Intensional transitives generally describe objects (searches, desires, needs, debts etc.) that come with a world-to-word/mind direction of fit and thus with fulfilment conditions. Unlike with pure imaginations, this permits the ‘object’ of a search being identical to an actual object:

- (34) This is the house John was looking for.

Imagination (of either sort) is of course important for attitude with fulfillment, realization, correctness, or appropriateness conditions: objects of imagination can trigger or be presupposed by desires (which have satisfaction conditions), plans, and decisions (which have realization conditions), and by emotions (which may have appropriateness conditions). This connection between intentional verbs as in (35a) and intensional transitive verbs as in (35b) can be involved in reports about the sharing of the ‘objects’ of the two sorts of verbs, as in (36a, b):

- (35) a. John imagined a castle.
b. John wants a castle.
(36) a. John wants what he imagined.
b. John imagined what he wants.

In (36a, b), the object of the imagination specifies the sort of object that can satisfy the desire. It is not obvious how that works if the imagination is an intentional object and the argument of *want* is a higher-order semantic value. This means that there is an outstanding task of connecting the present semantics of intentional verbs with the semantics of intensional verbs.

9 Conclusion

Philosophers tend to have significant reservations regarding nonexistent objects of imagination, thought, and other attitudes. On the present view, which focuses on a range of linguistic facts, objects of imagination and other attitudes, even as nonexistent, intentional objects, play a role as entities in the semantic structure of natural language, but only in linguistic contexts that explicitly or implicitly involve quasi-referential acts. This supports an account of intentional objects as ontologically dependent on quasi-referential acts, in the sense of being generated by such acts. Intentional objects, this paper has argued, are to be sharply distinguished from fictional characters, which have the status of existent objects that are parts of a story, an abstract artifact that is the object of intentional creation.

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