There be- and *have*-sentences: different semantics, different definiteness effects

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Abstract Keenan (1987) coined the term "existential-*have*" for *have*-sentences containing a relational noun in object position that present a definiteness effect (DE) similar to the one in *there be*-sentences. We begin this paper by showing in detail that the DE in these sentences is in fact different from the one found with *there be*-sentences. We then explain how these contrasts reflect differences in the semantics of the two sorts of sentences that we have independently argued for in previous work (McNally 1997 and Bassaganyas-Bars 2018). We will specifically challenge two assumptions that are frequently made about the definiteness effect in *have*-sentences: 1) that it is related to any version of the so-called "weak"/"strong" distinction that has been used to characterize the effect in *there be*-sentences since Milsark 1977; and 2) that it is limited to relational nouns like *handle* and follows from treating such nouns as two-place predicates. Finally, we show how our account is superior to other accounts that have been offered of the definiteness effect in *have*-sentences.

1. Introduction

During a period of great interest in the well-known definiteness effect for existential *there be*-sentences in English ((1a)), Keenan (1987) offered an early, classic discussion of what have come to be

known as *existential have*-sentences, which appear to manifest a similar effect ((1b)).[1]

(1) a. There was a/??the handle on the cup
b. The cup has a/??the handle (on it).

Although the contrast in (1a) has received considerable attention in the intervening years and the analysis of existential sentences and the definiteness effect has reached a certain level of maturity (see section 2.1, as well as McNally 2016a for a broader overview), considerably fewer works have focused on the contrast in (1b), and the debate over the analysis of existential *have* has remained unresolved (see section 4 for references). The goal of this paper is to draw renewed attention to *have*-sentences and contribute to settling this debate.

We begin in section 2 by demonstrating that the definiteness effect in these sentences is in fact different from the one found with *there be*-sentences. Section 3 explains how these contrasts reflect differences in the semantics of the two sorts of sentences independently argued for in McNally 1997 and Bassaganyas-Bars 2018. The discussion will specifically challenge two assumptions that are frequently made about the definiteness effect in *have*-sentences: 1) that it is related to any version of the so-called "weak"/"strong" distinction that has been used to characterize the effect in *there be*-sentences since Milsark 1977; and 2) that it is limited to relational nouns like *handle* and follows from treating such nouns as two-place predicates. Finally, in section 4 we show how our account is superior to other accounts that have been offered of the definiteness effect in *have*-sentences.

2. The definiteness effects in *there be*- vs. *have*-sentences

2.1. *There be*-sentences

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[1] We follow Keenan in using the term to refer specifically to sentences of the form in (1b) and not to existential sentences whose main verb is a form of *have*, such as *haver-hi* ('have-there') sentences in Catalan; see section 3.2 on the latter.

As the literature on the definiteness effect in *there be*-sentences is vast (see McNally 2016b for an annotated bibliography), we will not review the data in detail here, but rather limit ourselves to summarizing the most relevant generalizations as described in McNally (1997, 1998), which to our knowledge have not been substantively challenged for English.

The definiteness effect got its name from the putative, out of the blue oddness of certain types of noun phrases in the pivot position of *there be*-sentences, as in (2). These include noun phrases with definite articles (2a), demonstrative determiners and certain possessives (2b), necessarily distributive determiners such as *every*, *most*, *both* and *neither* (2c,d), as well as partitive noun phrases (2e), and proper names and personal/demonstrative pronouns (2f) ("??" signals out of the blue oddness, without any claim as to the reason for this oddness).[2]

(2)a. ??There is the tree in the backyard.
b. ??There is this/that/our tree in the backyard.
c. ??There is every/neither tree in the backyard.
d. ??There are most/both trees in the backyard.
e. ??There are some/two/half/all of the trees in the backyard.
f. ??There was Fido/her/that in the backyard.

The examples in (2) contrast with the clearly acceptable ones illustrated in (3):

(3) a. There was a/some/no tree in the backyard.
 b. There were three/several/many/few trees in the backyard.
 c. There was a friend of ours in the backyard.
 d. There was someone/nobody in the backyard.

Though initial efforts to formally characterize the definiteness effect focused on the determiner (e.g. Barwise & Cooper 1981, Keenan 1987), assimilating the behavior of names and pronouns to that of

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[2] *This* in (2b) has another, indefinite use (Prince 1981) on which it is fully acceptable in *there be*-sentences. The marked judgment in (2b) is intended to reflect deictic/anaphoric uses.

noun phrases with definite determiners, it soon became clear that the determiner alone was not responsible for the pattern of data.[3] This fact is already apparent in the behavior of partitives, which contrast with non-partitive noun phrases even when the determiner is the same (as in *some of the trees* vs. *some tree*).[4] However, the need to take into account the full noun phrase became even clearer once some complications to the pattern in (2)-(3) were pointed out.
On the one hand, Jenkins (1975), Lumsden (1988) and others observed that the effect disappears completely when the descriptive content in pivot noun phrase picks out a (sub)kind or type, as in (4) (examples from McNally 1997; see also Wilkinson 1995).

(4)a. There were those kinds of books at the library.
b. There was each of the three kinds of chocolate available.
c. There was every flavor of ice cream for sale.
d. There were both wines available for tasting.
e. There was each color in the pack of crayons.
f. There was neither size on the list of available sizes.

These examples intuitively refer anaphorically to, or quantify over, kinds, and assert for the kinds in question the existence of instances of those kinds: That is, they are paraphrasable as, for example, *There were books of those kinds at the library*.
The sentences in (5), similar instances of which were discussed in Prince (1992), arguably have a similar kind of interpretation, even

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[3] Milsark (1977) characterized the acceptable determiners in (3) as "weak," and the unacceptable ones as "strong." We will not get into a discussion of these terms here, both because there is an ample literature on them and because not all researchers have used these terms to characterize the definiteness effect (see, e.g., Keenan 1987). However, it is worth pointing out that as the emphasis on the analysis of the definiteness effect shifted from the determiner to the full noun phrase, attempts to define "weak" and "strong" underwent a similar shift. See McNally, to appear, for a review and discussion.

[4] This contrast led both Barwise & Cooper and Keenan to treat the string [Det_1 *of* (Det_2)] in partitives as a complex determiner. Though analysis of partitives has been controversial (see, e.g., Zamparelli 1998, Sauerland & Yatsushiro 2004 and references cited there), as far as we can determine, all analyses treat Det_2 as forming a syntactic and compositional unit with the noun phrase following it, to the exclusion of Det_1. We make this same latter assumption here. It is this assumption that renders partitives problematic for the hypothesis that it is the denotational properties of the determiner alone that conditions the definiteness effect.

though they do not contain nouns that conventionally describe (sub)kinds specifically.[5]

(5)a. There were the necessary ingredients to make a cake.
b. There were the usual crowds at the most popular tourist sites.
c. There was the same support for the measure this year as there was last year.
d. There was the craziest idea in that talk.
e. There was every reason to leave.

That is, these can also be paraphrased as *There were ingredients of the necessary kinds to make a cake*, or *There was an instance of the craziest idea imaginable in that talk*. Crucially, in all of these examples, the noun phrase does not refer to or quantify over token instances that have already been introduced into the discourse. The data in (4)-(5) clearly show that in at least some cases, the putative definiteness effect does not have to do with the determiner at all.
On the other hand, various counterexamples to the effect have been identified which involve not the type of entity described by the pivot, but rather its (non)uniqueness or status in discourse. For example, Woisetschlaeger 1983, Holmback 1984, and Barker 1995, among others, have shown that definites and possessives are acceptable when the full noun phrase does not have a unique extension. This happens, for example, when the noun describes a relation and the complement to the noun is indefinite, as in (6).

(6)a. There was the lid to a jar on the counter.
b. There was a student's parent waiting in the office.

Crucially, in contrast to what is possible with kind nouns shown in (4)-(5), these sorts of cases are not possible with distributive determiners, such as *each* or *both*, nor do they sound natural out of the blue with demonstratives:

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[5] Some of these examples, particular (5d-e), might also be understood as asserting the existence of amounts of ingredients, people, etc. For arguments that amounts and kinds are closely related, see Anderson & Morzycki (2015) and Mendia (2018).

(7)a. ??There was each/that lid to a jar on the counter.
b. ??There were both/those lids to a jar on the counter.

Informally, what distinguishes cases like (6) from other examples with definites and possessives is that the novelty and non-uniqueness of the referent of the prepositional phrase complement or possessor noun phrase ensures that the referent of the full pivot is also novel. The definite article and possessor phrase signal that there is a familiar relation – that of being a lid to something, or of being a father to someone, but not that there is a familiar lid or father already presupposed in the discourse.
Partitives provide another set of counterexamples. Hoeksema (1989: 123), questioned Milsark's judgment that partitives are unacceptable in the construction, claiming instead that partitives with at least some indefinite determiners can be acceptable in the pivot position of *there be*-sentences when there is a so-called coda phrase, as in (8a-b), which contrast with (8c), where no coda phrase is present.

(8)a. There was one of us at the door.
b. Were there more than two of them at the party?
c. ??There is one of the two boys.

There is no obvious relevant semantic or structural difference between (8a,b) and the partitive examples with *some* or *two* in (2e).[6] Hoeksema suggests that the oddness of partitives in existentials with no coda is due to the fact that such sentences are completely redundant if their only contribution is to assert the existence of a subset of individuals within a larger set whose existence is already familiar in the discourse. When there is a coda, at least the fact that this subset has the property the coda describes could be informative. The partitive data suggest that in at least some cases, Milsark's judgments did not reflect ungrammaticality or anomaly, but rather simply a lack of appropriate contextualization. Perhaps the most convincing evidence that this is the case came in Abbott (1993),

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[6] Hoeksema does not discuss partitives with proportional but not necessarily distributive determiners, such as *half* or *all* in (2e), which present further complications that will not be crucial to the main point of this paper. See McNally (1998) for discussion of these.

Ward & Birner 1995, and Abbott (1997), in addition to works they cite, as well as in the statistical study in Beaver, Francez & Levinson (2005). Abbott and Ward & Birner present a notable number of *there be*-sentences attested in corpora in which true definites, demonstratives, some pronouns, and proper names appear in pivot position, a sample of which is given in (9).

(9)a. I'd love to get away from my job, the kids, the bills… I've thought of chucking it all and going to Hawaii. But **there are the kids** to consider. (Ward & Birner 1995: (8b))
b. The worst one that existed was 10 thousandths on the single 0-ring on the Titan, and there are 20 of the five-segment….There were […] two five-and-a-half segments, which was a way of getting a little additional performance. And I believe every one of them flying now is the five-and-a-half segment device. And there is not any evidence, but **there was this 10 thousandths**. (Ward & Birner 1995: (6))
c. I think there was one flight where we had one problem. It wasn't ours, but **there was that one flight**. (Ward & Birner 1995: (10))
d. FS: A lot of times interpreting what people are saying is a problem.
SS: **There's that**, but there's also the fact that the field is basically bullshit. (Abbott 1997: fn. 4, (ib))
e. A: I guess we've called everybody.
B: No, **there's still Mary and John**. (Abbott 1993: (5))
f. OK, let's finish up this guest list. **There's you and me**. Who else is coming? (Abbott 1997: (6))

Although they did not agree on exactly what generalization might cover these examples, they did agree that not all of them correspond to the so-called "list" interpretation of *there be*-sentences (see, e.g., Rando & Napoli 1978), illustrated in (9e-f). Fortunately, for our purposes, the exact conditions facilitating these sentences are less important than the fact that they are attested at all.
 A few things should be noted about these data. First, necessarily distributive determiners such as *each* or *most* are conspicuously absent in the counterexamples these authors discuss. Second,

demonstrative pronouns seem to be more common as pivots than are personal pronouns. Finally, the pronoun *it* is also absent in their data.

We can sum up the relevant empirical generalizations in this section as follows: [7]

(i)   Necessarily distributive determiners such as *each* are acceptable in pivot position as long as they quantify over "higher order" entities (kinds, or types).[8]

(ii)   Any noun phrase that can have a non-quantificational interpretation is in principle acceptable in pivot position, irrespective of the sort of noun its contains (including a proper name); however, when the noun phrase describes a familiar discourse referent, it must be appropriately contextualized.

(iii)   Generalization 2 also holds for pronouns, with the apparent exception of *it*, which is extremely rare, if attested at all.

In section 3.1 we present the account of this pattern on McNally's (1997) analysis of *there be*-sentences, but first we compare the definiteness effect in *have*-sentences.

2.2. *Have*-sentences

Before we illustrate the definiteness effect in *have*-sentences, we must note an important difference between *there be* and *have*. Pivots in *there be*-sentences are generally headed by sortal, or one-place, nouns. This has traditionally been given a type-theoretic explanation: *there be* is a one-place predicate, so it lacks an argument position for the additional argument of a relational noun. Relational nouns are sometimes even odd out of the blue as pivots unless the

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[7] These generalizations are consistent with the data presented in Beaver, Francez & Levinson (2005) (see especially their footnote 9), but their study does not directly speak to them for various reasons: 1) they did not collect data on proper names; 2) they did not consider the noun in the pivot as a factor in determiner distribution; and 3) they present statistics not on absolute frequency in pivot position but rather on the ratio of occurrences of the determiner/pronoun in subject vs. pivot position.

[8] For our purposes, these two terms can be considered synonymous.

additional argument is present in a PP or possessive phrase (as in (6) above), as the contrast in (10) shows.

(10) a. ?There is a sister-in-law in the kitchen.
b. There is a sister-in-law of theirs in the kitchen.

This contrasts with existential *have*. As mentioned in the introduction, the literature has generally assumed that the definiteness effect is attested precisely with relational nouns, and only these. In such sentences, the effect has to do with the possibility of interpreting the sentence as asserting that the subject and the object of *have* stand in the relation denoted by the noun. On this view (11a) conveys that Kim is in a siblinghood relation with another entity (the "existential" or "relational" reading), whereas (11b) does not have this reading.

(11) a. Kim has a sister.
b. ??Kim has the sister.

Aside from this difference, most of the literature presupposes that the definiteness effects in *there be* and *have*-sentences are two instances of the same phenomenon, given that, at first blush, the type of noun phrases that allow for a relational reading mirror the ones that yield out of the blue felicitous existential statements with *there be*. That is, the type of determiners that impede a relational reading, illustrated in (12), parallel those in (2) above (setting aside possessives, proper names and pronouns, which cannot be relational). In turn, (13) shows that the determiners that allow for the relational reading are the ones in (3) above.

(12) a. ??Jan has the sister.
b. ??Jan has this/that/our sister.
c. ??Jan has every/neither sister.
d. ??Jan has most/both sisters.
e. ??Jan has some/two/all of the sisters.

(13) a. Jan has a/some/no sister(s).

b. Jan has three/several/many/few sisters.

We have seen in section 2.1 that this simple opposition does not capture the full pattern of data observed in *there be*-sentences, and that a more nuanced view of the definiteness effect is necessary. However, this rethinking of the effect has not, to our knowledge, been systematically applied to existential-*have.* We will now show that cracks similar to those found in the pattern illustrated by (2) and (3) for *there be* also affect the picture provided in (12) and (13) for *have*.

First, we saw in (4)-(5) that the definiteness effect in *there be*-sentences disappears if the pivot has a kind(-like) interpretation. The same is true if the object of *have* picks out a (sub)kind or some other sort of higher-order entity (e.g. an individual concept, as in (15d)).[9] All the sentences in (14) and (15) have a relational reading.[10]

(14) a. Jan has this kind of sister.
 b. Kim has every kind of friend.
 c. Jan has both problems.
 d. Kim has each of the three types of student.

(15) a. Turkey has the necessary assets to be a soft power.[11]
 b. Stick had the usual foreman's voice.
 c. Jan has the same intelligence as Kim.
 d. I did manage to have the cutest boyfriend in school.[12]
 e. Kim had every reason to leave.

These sentences assert that the subject referent is related to one or more token entities which instantiate the relevant kind(s) through the relation associated with the relational noun in each case. That is, (14a) can be paraphrased as *Jan has a sister of this kind*, and (15c)

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[9] The observation in footnote 5 applies in examples like (15) as well; some of these sentences can be understood as being about amounts of assets or intelligence, for example.

[10] Myler (2016: 334) acknowledges the existence of these cases, but does not account for them.

[11] https://www.thefreelibrary.com/The+Turkish+model+and+democratization+in+the+Middle+East.-a0137625144.

[12] From Caprice Crane, *With a little luck: A novel*, New York: Random House, 2011, p. 7.

can be paraphrased as *Jan's and Kim's kind/amount of intelligence are the same*.

We also saw in section 2.1 a range of data suggesting that the definiteness effect is at least partially discourse dependent. The first sort of case, in (6), involved definites that are acceptable in *there be*-sentences if the noun is relational and the entity to which its referent is related is expressed by an indefinite. This case is not directly applicable to *have*: if this entity is expressed within the direct object, the sentence cannot assert that the relation in question holds with the subject referent.

However, a similar type of example provides a further window into the definiteness effect with *have*. The objects in both (16a) and (16b) have definite articles, but both have clear relational interpretations.

(16) a. Jan has the body of an athlete.
b. I feel that if I have the body of Miley Cyrus my life will be better.[13]

Strikingly, the uniquely referring proper name in the complement to the direct object in (16b) does not affect the availability of the relational reading. Therefore, the fact that the full noun phrase lacks a unique extension is not a constraint in such cases. Bassaganyas-Bars (2018) argues that in such cases the object can be interpreted as a description of a kind, thereby assimilating these examples to (14)-(15).

The second sort of case involved partitives with codas (see (8a-b) above). It is a bit problematic to find parallel data in *have*-sentences. If we take object-oriented predicative modifiers as roughly equivalent to codas in *there be*-sentences, the addition of such a constituent does not seem to help to improve these sentences. (17) is infelicitous with and without the modifier.

(17) ??Kim has two of the three sisters (ready to help).

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[13] http://www.lvinlovewith.com/2014/05/clothes-boyfriend-jeans-bonus-ramble.html.

What seems to go wrong in (17) is that the sentence assumes a set of sister-individuals that exist independently of Kim. We return to this problem in section 3.2.

Finally, examples parallel to (9e-f), where context licenses proper names and pronouns, do not have equivalents with *have*, since in principle existential-*have* sentences need a relational nominal as the direct object. Regarding pronouns, however, *have*-sentences show the opposite behavior to that of *there be*-sentences. *It* is the only pronoun that does not appear as the pivot in *there*-existentials, but it is the one that occurs most easily as the object of *have* with a relational interpretation, as shown in (18a), though examples with demonstratives are also attested, as in (18b).

(18) a. It's a skill, and they don't have it.
b. That mobility shows up and changes the look of their attack and now without him, they lost a dimension that served them well.... That puts a lot of pressure on opponents and now they don't have that.[14]

To sum up, the relevant generalizations stemming from this section are the following:

(i)   As with *there be*-sentences, necessarily distributive determiners are acceptable in the direct object of *have* on a relational interpretation as long as they quantify over higher-order entities (kinds or types).

(ii)   Definite NPs are acceptable as the direct object of *have* on a relational interpretation as long as they can be understood as a description, of a higher-order entity (e.g. a kind or an individual concept).

(iii)   Directly referential noun phrases, names and pronouns are not acceptable as the direct object of *have* on a relational interpretation, except for demonstratives and *it*.

We now turn to our analyses of the two definiteness effects, rejecting the possibility of explaining the definiteness effect in *there be*-

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[14] Corpus of Contemporary American English (Davies 2008-).

and *have*-sentences as instances of the same phenomenon. We will also question the assumption (which we have followed so far for the sake of the argument) that the definiteness effect in *have*-sentences is limited to noun phrases containing relational nouns.

3. Different semantics, different definiteness effects

3.1. The analysis of *there be*-sentences

McNally (1997: (2)) described *there be*-sentences informally as in (19):

(19)   The existential predicate in English is interpreted as a property of a description of an entity, specifically the property that the description is instantiated by some entity at some index. The addition of an existential sentence to a context entails the introduction of a discourse referent that corresponds to the instantiation of the description-argument into the domain of the discourse model. An additional felicity condition requires this referent to be novel.

What is crucial in this proposal is that the pivot in *there be*-sentences does not denote or quantify over ordinary token entities. Rather, it denotes or quantifies over something more abstract – a higher order entity –, which McNally (1997) modeled formally as a *nominalized function* (also sometimes called an *entity correlate of a property*), drawing on Chierchia & Turner's (1988) property-theoretic semantics. Chierchia & Turner's proposal addressed the fact that we ascribe properties not only to entities, but also, intuitively, to other properties, such as when we say *Happiness is difficult to achieve*. To capture this double nature of properties, as things we ascribe but also talk about, they introduced a nominalization operator, $\cap$ (see (21), below), which turns properties-as-functions (corresponding to their predicative use) into their entity

correlates (corresponding to their use as arguments to other predicates), effectively "nominalizing" them.[15]

Building on Partee's (1987) theory of noun phrase type shifting, McNally posited that any noun phrase with a predicative use, as demonstrated by the possibility of appearing in predicate position in a copular sentence, could be interpreted as a nominalized function. As (20) illustrates, such noun phrases include not only indefinites but also definites.

(20) a. That object is a tree.
b. Sam and Lee are two friends.
c. You are no leader.
d. Kim is the/that leader that we need.
e. The kids you see here are all of my students.

Her analysis of a *there be*-sentence like (21a), then, was as in (21b-d), where x_{nf} stands for a variable over nominalized functions.[16]

(21) a. There was a tree.
b. *there be*: λx_{nf} **instantiate**(x_{nf})
c. *a tree*: $^\cap\lambda y[\textbf{tree}(y)]$ (an entity of sort *nf*)
d. *There was a tree*: **instantiate**$(^\cap\lambda y[\textbf{tree}(y)])$

She treated numerals and other indefinite determiners as introducing cardinality conditions on the instantiated discourse referent, and definites and demonstratives as introducing familiarity conditions on that referent; she also allowed for a predicative analysis of proper names.

Partee's theory predicts that necessarily distributive determiners, i.e. in English *each*, *every*, *neither*, *both* and *most*, cannot shift in the same way as other determiners, and are thus excluded from predicative position unless they can be interpreted as quantifying over nominalized functions, as seen in (22):

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[15] This brief description of Chierchia and Turner's system deals imprecisely with various important technical details; see their paper and Chierchia (1984) for discussion.

[16] The coda phrase was treated as a verb phrase adjunct on this analysis, and not as the main or selected secondary predicate.

(22) a. ??Sam, Lee, and Kim are each/every leader.
b. ??The girls are both/most leaders.
c. This house has been each/every/neither color.
d. This house has been both/most colors.

This closely resembles the distribution of these determiners in *there be*-sentences.

These contrasts led McNally to conclude that the definiteness effect in *there be*-sentences was not a unitary phenomenon, but rather the product of two distinct conditions: The existential predicate's sortal restriction to nominalized functions, on the one hand, and a pragmatic condition on the novelty of the token referent instantiating the nominalized function, on the other. Sentences like those in (2c,d) above are ruled out not due to any restriction on the determiner as such, but rather because the pivot nominals quantify over the wrong kind of entity and have denotations that cannot be type-shifted to nominalized functions. However, the determiners in question are licensed when they quantify over nominalized functions, as shown in (23).

(23) a. There was each kind of tree (in the yard).
b. *there be*: λx_{nf} **instantiate**(x_{nf})
c. *each kind of tree*: $\lambda P(\textbf{each } y_{nf}: \textbf{kind}(y_{nf}, \textbf{tree}))[P(y_{nf})]$
d. *There was each kind of tree*: $(\textbf{each } y_{nf}: \textbf{kind}(y_{nf}, \textbf{tree}))[\textbf{instantiate}(y_{nf})]$

In contrast, there is no sortal semantic reason to exclude definite, demonstrative and other determiners that have been claimed to be disallowed in the construction, insofar as the noun phrases containing them can be shifted to nominalized function denotations. For these, McNally argued that the definiteness restriction was pragmatic, in line with the observations of Ward & Birner (1995) and Abbott (1993, 1997). McNally (2009) suggested that the specifically token anaphoric (as opposed to type anaphoric or deictic) nature of *it* prevented it from being able to adapt to the pragmatic conditions on the pivot.

Some aspects of McNally's semantic analysis have been criticized in Francez (2007). Francez proposes that the pivot functions as a predicate, rather than as an argument, and that the definiteness effect is fundamentally pragmatic, attributable to the fact that the pivot is a focus, and thus resistant to nominals that have "topical properties" (e.g. definites).[17] Though space precludes a full discussion of Francez's analysis here, his main arguments against McNally's treatment of the latter are two: that it precludes a unified account of the definiteness effect and that there are some specific scope facts involving modals that it cannot accommodate. However, as his claims concerning these scope facts has been disputed (see Szekeley 2015 on the latter issue), and since his other objection is fundamentally one of parsimony (and was addressed already in McNally 1997), we will maintain the analysis presented in this section as we now turn to *have*-sentences.

3.2. The analysis of *have*-sentences

Despite the superficial similarities between the definiteness effects described above, Bassaganyas-Bars (2018) argues that a different semantics for *have* is required than the one McNally provided for *there be*: *Have*-sentences express the proposition that two token-level entities stand in an unspecified (stative) relation to each other. Simplifying the implementation in Bassaganyas-Bars (2018), we assume the logical representation for *have* in (23), where R is a variable that must be contextually valued.

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[17] To the extent that Francez's analysis treats the pivot as a predicate, it resembles the analyses in Milsark (1977) and McNally (1998) (the latter of which is a reformulation of the analysis adopted here). However, Francez's account differs in treating the pivot as not as a property of individuals but as a property of properties (i.e., a generalized quantifier). This difference mainly affects the analysis of the part of the definiteness effect that involves necessarily quantificational determiners.

In contrast, the differences between treating the pivot as a first-order predicate (i.e., of (functional) semantic type $<e,t>$ or $<s,<e,t>>$) vs. the entity correlate of property (i.e., as the type e counterpart of such a function) are more subtle, and essentially preserve the account of the definiteness effect presented in the text – see McNally (2009) for discussion. No matter which of these variants of the analysis of the pivot is chosen, the source of the definiteness effect will contrast with the source of the effect on our analysis of *have*-sentences. We further compare the sources of the definiteness effects at the end of section 3.2.

(24) $\lambda x \lambda y \lambda s.R(x)(y)(s)$

This analysis relies on (i) a treatment of relational nouns that challenges widely-accepted formal semantic accounts, and (ii) the hypothesis that sortal nouns are pragmatically associated with relations that make them function in a pseudo-relational way in discourse. We consider these two aspects of the analysis in turn.

The well-established treatments of relational nouns in Barker (1995) and Partee (1997) treat them as two-place, rather than one-place, properties. The difference between a sortal noun like *woman* and a relational noun like *sister* is thus one of semantic type.

(25) a. *woman*: $\lambda x.\textbf{woman}(x)$
b. *sister*: $\lambda x \lambda y.\textbf{sister}(x)(y)$

Bassaganyas-Bars (2018) challenges this view after reviewing the tests that have been used as evidence for the distinction in (25). Instead, he proposes treating such nouns as one-place, relation-entailing predicates, as in (26a); this entailment is modeled as a meaning postulate, as in (26b).

(26) a. *sister*: $\lambda x.\textbf{sister}(x)$
b. $\forall x \forall w[\textbf{sister}_w(x) \rightarrow \exists y \exists s[\textbf{siblinghood}_w(x)(y)(s)]]$

He further proposes the following discourse condition on the use of relational nouns.[18]

(27) **Non-derived Relational Noun Instantiation Condition:** The introduction of a token discourse referent for a relation-entailing individual x needs to be anchored to the relation it entails and to the discourse referent corresponding to the other participant in this relation. (Bassaganyas-Bars 2018: 87)

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[18] (27) is based on a similar condition proposed in Grimm and McNally (2013) for deverbal nouns.

(27) is motivated by two observations. First *have* is one of very few verbs that accepts such direct objects.[19] Relational nouns are generally a degraded way of introducing new referents into a discourse (Landman 2004).

(28) a. Kim has a cousin.
b. ??Kim is talking to a cousin.
c. ??A cousin walked in.

Second, sentences like (28b-c) can be felicitous in a context where an entity described by the relational noun (in (28), *cousin*) has been previously introduced into the discourse together with the individual it is related to by entailment, as in (29a-b).

(29) a. Jan brought his sister and four of his cousins to the party. Eve is now dancing with the sister, and Kim is talking to a cousin.
 b. After a woman found out via Facebook that a man who'd 'poked' her in real life had a long term girlfriend, she turned to digital manners advice givers Farhad Manjoo and Emily Yoffe of *Slate* to ask whether she should tell the girlfriend. (Bassaganyas-Bars 2018: 84)

Let us now examine the hypothesis that sortal nouns are associated with relations that allow them to behave pseudo-relationally. Consider a noun like *dog*. This predicate can be used to describe an individual irrespective of its connection to any other entity in the world, as in (30a). However, it can also be used to refer to an entity whose existence in discourse is tied to another individual. This is

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[19] To our knowledge, only the verbs *want, need* and *give* also allow for this possibility. See Beavers et al. (2009) for a unified analysis of *have* and these three verbs, based on the idea that they all take relational(ized) objects; see also e.g. Larson, et al. (2018) for the related (and independently motivated) proposal that *want* and *need* embed an abstract *have* relation. Note that these verbs differ from verbs of possession (e.g. *possess, own*), which do not allow such discourse-new objects. Though space precludes an full discussion as to why this difference exists, we suspect that it has to do with the fact that *possess* and *own* specifically entail possession relations, whereas on the account defended here, *have* does not.

the case of (30b) and (30c), in the latter of which a nominal posses-
sive is used.

(30) a. Kim saw a dog rummaging in the trash.
b. Kim has two dogs.
c. Kim left her dog with Jan while she was on holiday.

The natural "possessive" interpretation of (30b) and (30c) is the one
on which, lacking any context, we understand Kim to be an adult
human being with no particular features. This interpretation facili-
tates the relation that entities of this kind normally have with dogs,
namely the one that links dogs-as-pets to their owners. It is easy to
observe, however, that in a richer context, where we are instructed
to treat the "possessor" as the realization involving a more specific
(sub)kind of entity, the relation that we need to add to our discourse
model can be different (examples from Bassaganyas-Bars 2018:
93).

(31) a. Hunters should have good dogs.
b. Right now, the shelter has 30 dogs and 150 cats.
c. Studies show that a 40- to 50-pound sled dog can burn more than
10,000 calories a day when distance racing. "I have 40 dogs [...]"
Rau says.

Bassaganyas-Bars argues that entities of all types are connected to
entities of other types through a network of relations which are part
of our world knowledge. This requires that, in *have*-constructions
(and in other possessive constructions), context give us enough in-
formation for us to recognize what kind of thing the subject referent
is taken to be an instantiation of at any point in discourse. For ex-
ample, if, as in (31c), this referent is understood to be a realization
of the kind *sled dog racer*, we resort to a well-established relation
that we know exists between such types of entities and dogs; this
tells us something about the subkind of dog we should add to our
discourse model and the kind of relation the dog stands in to the
subject referent. This relation is not necessarily a possession rela-
tion in the sense that this relation is usually understood.

On this view, the crucial difference between *have* and more run-of-the-mill transitive verbs is that a value must be supplied for the underspecified relation that *have* contributes. If a *have*-sentence is uttered in a context where discourse does not provide any relation, it has to resort to one provided by the noun in object position. To see this, imagine both (32a) or (32b) are uttered discourse-initially.

(32) a. Kim has a sister.
b. Kim has a dog.

In (32a), the required relation is provided by the entailment associated with the relational noun *sister* (see (26)). This means that the sentence will be interpreted as asserting that Kim stands in a siblinghood relation with another entity. More specifically, the account predicts that, in the absence of any previous context, this is the only reading of (32a).
By contrast, (32b) can only have an interpretation if we know what kind of entity Kim is taken to be. By default, we resort to the interpretation that Kim is an ordinary adult person, and entities of this type tend to have a relation with dogs that we may call "default person-dog." [20] The logical representations for (32a) and (32b) are given in (33), where, for illustrative purposes, the contribution of the indefinite determiner is modeled as a choice function (f in (33); see e.g. Winter 1997).

(33) a. $\exists s \exists f.$**siblinghood**(f(**sister**))(**k**)(s)
b. $\exists s \exists f.$**default_person-dog**(f(**dog**))(**k**)(s)

Let us now turn to the predictions of this account for violations of the definiteness effect. Consider (34a-d).

(34) a. Kim has the sister.
b. Kim has every sister.
c. Kim has the dog.

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[20] This view implies that any sortal noun can in principle function in this pseudo-relational way, as long as world knowledge provides a sufficiently salient relation between the kinds instantiated by the subject and object discourse referents.

d. Kim has every dog.

Neither (34a) nor (34b) can have the relational interpretation, which Bassaganyas-Bars calls "non-contextualized": they cannot convey the relation entailed by the relational noun (in this case, that of siblinghood). [21] The novelty of this approach is that it does not attribute the definiteness effect to *have*, but rather to the way relational nouns can be used in discourse in general.

The noun phrases *the sister* and *every sister* presuppose that certain entities the noun *sister* is true of have been previously introduced into the discourse. According to the condition in (27), this requires that we know who these sisters are sisters of. Neither (34a) nor (34b) can thus have the reading that these entities are Kim's sisters. They need to be someone else's sisters if these object noun phrases are to be felicitous at the point where (34a) or (34b) are uttered. If the entities in question were really in a siblinghood relation with Kim, uttering (34a-b) would be a pointless conversational move. However, both sentences will be felicitous if context gives us a specific relation – different from siblinghood – that can give content to *R* in the logical representation of *have* (see (24)). Bassaganyas-Bars (2018) calls these "contextualized" uses of *have*.[22]

Furthermore, this account predicts that neither (34c) or (34d) has a reading on which Kim keeps a dog or a set of dogs as pets. That is, neither sentence naturally conveys the relation most saliently associated with dogs and (default) people. We might think of this inter-

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[21] Two reviewers point out sentences with the noun *kids* (e.g. (i)) as possible counterexamples to this claim.

(i) Kim cannot go out because she has the kids.

We note that the relation connecting an individual to their kids is so socially salient that it is generally available even outside of *have*-sentences (iia); other relational nouns (e.g. *parents*) cannot be used in the same way (iib-c).

(ii) a. Kim is always thinking about the kids.

    b. ??Kim cannot go out because she has the parents.

    c. ??Kim is always thinking about the parents.

[22] The terms "(non-)contextualized" are borrowed from Abbott (1993); however, we note that there are differences between the information that Abbott assumes must be available in previous discourse to license contextualized uses of *there be* vs. what we consider necessary for contextualized uses of *have*.

pretive restriction as a counterpart of the definiteness effect which arises with sortal nouns. Let us illustrate how this restriction arises.

The felicity of (34c-d) relies on a dog or set of dogs being present in previous discourse. On the analysis presented here, they could have been introduced either as stand-alone entities or in relation to someone else, i.e., via a pseudo-relational use of *dog*. It seems that if an entity described with a sortal noun is introduced into discourse on its own, it cannot be subsequently referred to using that sortal noun in a context that would force a pseudo-relational interpretation of its referent, i.e., an interpretation relying on the network of relations associated with the noun. Rather, we need to resort to a contextually-supplied relation. For (34c-d), it could be one where different pets are distributed among vets in a context where it is clear that Kim is one of the vets.

If, by contrast, the relevant dog or set of dogs have been introduced, e.g., as Jan's dog(s), one cannot resort again to the network of relations between types of things to give an interpretation to (34c-d): The relevant dogs exist in discourse in virtue of their link to Jan. Again, we must resort to a contextualized interpretation, if the context provides one, in order to relate Kim to the dog(s).[23]

Summing up, both relational and sortal nouns manifest a definiteness effect in *have*-sentences when the noun phrase containing them anaphorically refers to a token-level entity. This effect, despite its name and the historical connection to the definiteness effect in *there be*-sentences, is best viewed as a restriction on the possible values of *R*. With relational nouns, it amounts to the impossibility of using the relation associated with the noun by entailment to supply a val-

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[23] Relatedly, it seems that an unmodified relational noun cannot be used in a contextualized-*have* sentence when the relation available from context is the one entailed by the noun. Even if preceded by (ia), (ib) cannot convey that Jan and Kim share a sister, i.e. the value of *R* cannot be siblinghood if the definite description anaphorically refers to the entity introduced by (ia) as Kim's sister.

(i) a. Kim has a sister.

    b. Jan has the sister (too).

As a reviewer notes, in some cases this becomes possible, e.g. if the noun is modified by *same*, as in (iia). The siblinghood relation introduced by (ia) can also be used by contextualized sentences like (iib), where the object is not described by the corresponding relational noun.

(ii) a. Kim has a good teacher, and gets great marks. Jan has the same teacher, but struggles to pass.

    b. Kim has a very nice sister, and Jan has Sam/a lazy brat.

We must leave an account of these restrictions for future research.

ue for *R*. With sortal nouns, it means that we cannot interpret *R* as the relation that connects the denotation of the object nominal with entities of the type under which the subject referent is categorized in the context. In both cases, we must resort to a contextually-supplied relation to interpret the *have*-sentence.

In section 2 we pointed out some differences between the definiteness effect in *there be-* and *have*-sentences. These involved some noun phrases that can be taken as descriptions of kinds, some partitives, and the pronoun *it*. Let us now see how this account treats each of these cases, and how the differences with *there be* arise.

First, recall that we saw that certain sorts of noun phrases, such as those that overtly describe kinds or can be read as descriptions of kinds, are not subject to the definiteness effect, as in (14a), (14b) and (16a), repeated here.

(36) a. Jan has this kind of sister.
b. Kim has every kind of friend.
c. Jan has the body of an athlete.

The acceptability of such sentences follows from our treatment of relational and sortal nouns, the discourse condition in (27), and standard assumptions about the interpretation of kind-level arguments to token-level predicates. Consider (37): Its truth relies on Kim having seen token movies, not abstract entities like kinds.

(37) Kim has seen that kind of movie.

One way to analyze kind-level arguments in such contexts is via Chierchia's (1998: 364) Derived Kind Predication, which builds on Carlson's (1977) analysis of kind-denoting nominal arguments:

(38) *Derived Kind Predication*
If *P* applies to objects and *k* denotes a kind, then $P(k) = \exists x[^{\cup}k(x) \wedge P(x)]$

This rule implies, for a sentence like (37), the introduction of a token-level entity realizing the kind in question to support the truth of

the utterance. The same mechanism applies to *have*-sentences. (36a) requires that the previous discourse contain a kind of sister that can be anaphorically referred to with the demonstrative *this*. By virtue of Derived Kind Predication, the sentence serves to introduce into the discourse one (or several) token-level entities realizing this kind. These token entities, of which the noun *sister* is true, are introduced into the discourse together with the entity they are related to, and as part of a construction that can assign the entailed relation as the value of R, thereby conforming to the condition in (27).

Similarly, in (36b) *every* quantifies over a set of kinds of friends. As a result of uttering the sentence, at least one token-level entity realizing each of these kinds is introduced into the discourse; since *have* connects these entities (satisfying the description *friend*) to the entity they are related to, (27) is respected. (36c) is explained in the same way: the phrase *the body of an athlete* must be treated as the description of a kind. It will introduce a body-token (with the typical features the bodies of athletes tend to have) into the discourse. Since *body* is relational, it must be introduced in connection with its "possessor," and this is precisely what (36c) does.

The acceptability as pivots of noun phrases similar to those in (36) is explained differently by McNally (1997). On her view, since these noun phrases denote higher-order entities, the existential predicate gets the type of argument it expects; the interpretive conditions associated with *there be* entail that a token-level entity corresponding to this description enters the discourse. Whether this difference in explanation has any empirical consequences is a matter we must leave for future research.

The second contrast between *there be* and *have* concerns partitives. Recall that partitives can occur as pivots in *there be*-sentences if a coda is present. This is not surprising on McNally's analysis, since that analysis imposes no semantic restriction on partitives, and the addition of a coda can yield an assertion compatible with the construction's novelty condition. The much stronger restriction against partitives as objects of *have*, illustrated in (17) (repeated in (39)), and the fact that a predicative modifier does not improve the sentence, require a different explanation.

(39) ??Kim has two of the three sisters (ready to help).

The problem in such cases does not have to do with *have*, but with the conditions on the use of relational nouns. (39) presupposes that there is a set of sisters in discourse connected by a siblinghood relation to another entity which is not Kim; hence, the sentence cannot have the relational reading, independently of any other variable, such as the presence of a coda.

Finally, let us consider the pronoun *it*. Recall that this pronoun cannot be the pivot in a *there be*-sentence. This restriction does not hold for *have*: *it* not only occurs naturally as the object of this verb, but it also preserves a relational interpretation, as the following dialog illustrates.

(40) A: This cool car is Kim's.
B: I think Jan has it, too.

The acceptability of (40) again follows from Bassaganyas-Bars' analysis. *It* in B's reply cannot be understood relationally if it is taken to refer anaphorically to the token car that belongs to Kim. It is, however, possible for the pronoun to refer anaphorically to the *kind* that the car is taken to instantiate; the sentence then can be interpreted as asserting that Jan has a car of the same type as Kim's, which is how we naturally interpret B's reply in (40).[24]

At this point, it should be clear that, despite superficial similarities, we take the definiteness effects in *there be*- vs. *have*-sentences to arise for different reasons. In the former, we attribute the effect to the specialized function of the construction for asserting the instantiation of the entity correlate of a property with a generally novel token referent. The effect has a semantic component that arises due to the restriction that the pivot denote a (nominalized) property or a quantifier over such properties – that is, it is deeply connected to the origins of *there*-existentials in the *be*-copular construction (recall the discussion of (20) and (22), as well as footnote 17) – together with a pragmatic component related to a (defeasible) discourse nov-

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[24] Why this is not possible for *it* in *there*-existentials, when we have seen that it is possible for demonstrative pronouns, is a question we must leave for future research.

elty condition. In the case of *have*, the effect follows from (i) the fact that *have* expresses a relation determined by the nominal in object position or by information in the context and (ii) independent assumptions about how relational and sortal nouns function in discourse, as well as about how kind-denoting noun phrases function as arguments of non-kind-level predicates. It does not reflect any sortal restriction on the entities that *have* relates, and the role of discourse novelty is slightly different that in the case of *there be*.

In disconnecting the sources of the definiteness effects in the two constructions, our analysis predicts that we might find cross-linguistic variation in the relation between the effects.[25] That this is a welcome prediction is easily seen by comparing English with Catalan, for example. Catalan manifests an ostensibly weaker effect than in English – see, e.g., Villalba 2016 and references cited there, as well as the Catalan sentences in (41), neither of which is translatable with a *there be*-sentence.

(41) a. …ens digueren a quina cabina/locutori hi havia cada pres.
   …us told to which booth loc has each prisoner
   '…they told us in which booth each prisoner was.'
   (http://bombers.assemblea.cat/a-estremera-2/)
 b. ...[la] ciutat vella, en la qual hi havia els edificis més destacats
   ...the city old in the which loc had the buildings more important
   '...the old city, where the most important buildings were located'
   (http://blogs.sapiens.cat/socialsenxarxa/2010/07/16/al-andalus-economia-societat-i-cultura/)

In contrast, the Catalan counterpart to English *have*, namely *tenir*, follows roughly the same pattern as that described here for English.[26]

(41) raises further issues in the comparison of *there be*- and *have*-sentences, concerning the relation among the different uses of *have*, as well as the different ways existence can be expressed. Specifical-

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[26] A similar descriptive observation is made by Myler (2016: 329ff). In the spirit of the view we defend here, he uses it to argue against the type of unified syntactic analysis of *there be* and *have* in Freeze (1992) and Kayne (1993).

ly, (41) offers an example of how a *have*-verb – in this case, *haver* (together with the locative clitic *hi*) – can be recruited to express existence, a cross-linguistically frequent phenomenon (see, *inter alia*, Gaeta 2013, Creissels 2014, and McNally 2016a for recent discussion). Such extended uses of *have*-predicates are ostensibly related to the sorts of uses we have discussed in this paper, which (despite Keenan's term "existential"-*have*) are not conventionalized to express simple existence.

The fact that a *have*-predicate makes an ideal candidate for an existential predicate has two explanations. First, *have*-predicates have essentially no meaning of their own (other than to express a relation), which is typical of existential predicates and also facilitates its taking on other functional roles, e.g. that of an aspectual or modal auxiliary –which are beyond the scope of this paper. As a result, *have*-predicates do not have to be "bleached" in order to be used for existence assertion, because they are essentially devoid of meaning to start with. Second, the very nature of a *have*-predicate as a maximally unspecified link between two entities clearly makes it suitable for an extended use where one of the entities is a location or some kind of "deictic center" – a relation that serves as vehicle for expressing existence.

This said, these observations should not be interpreted as supporting the idea that both possessives and existentials derive from the same underlying structure, as argued by e.g. Freeze (1992, 2001). On our view, a possessive predicate like *have* can evolve to become an existential predicate, but this is just one of the ways an existential predicate may develop diachronically (Gaeta 2013). What is more, existential predicates that develop from different sources may have different semantics and, relatedly different underlying sources for their definiteness effects, despite the general similarities in their discourse referent introduction function. McNally (2016a) discusses this cross-linguistic variability in detail, and the reader is referred to that work for further details and argumentation on this point.

Still, given the connection between the existential (including those of the sort in (41)) and the non-existential uses of *have*-predicates, one might reasonably expect that the definiteness effect in the two sorts of uses, to the extent that it exists, should have a common

source. Despite the weak definiteness effect attested for Catalan existentials, a reviewer has pointed out to us that for some languages where *be* and *have* can both be used as existential predicates, the definiteness effect is stronger for *have* than it is for *be* (see e.g. Bentley et al. 2015 for Sardinian and Bassaganyas-Bars 2015 for Old Catalan).

We suggest that the stronger definiteness effect with *have* as compared to *be* in such cases can be attributed on our account to the fact that sortal nouns functioning as pivots in *have*-existential predicates are interpreted pseudo-relationally, i.e. are introduced into the discourse anchored to another individual – in this case, a location (loosely understood). Recall from (34c-d) above that if a token-level entity can be felicitously referred to with a definite NP, that is because it has been previously introduced as a stand-alone entity or in connection to another discourse referent. In either case, the entity cannot then be made an argument to a construction that would make it start functioning pseudo-relationally (if it was previously introduced as stand-alone entity) or in connection to a different entity from the one it was initially anchored to (if it had been already been introduced pseudo-relationally). This is enough to rule out the possibility of (token-denoting) definite NPs occurring as pivots in some languages with *have*-existential predicates.

In the case of Modern Catalan, the weakened definiteness effect might be attributable to the possibility of resorting to a contextualized interpretation in sentences like (41); in languages where the effect is stronger than with *be*, such as Sardinian and Old Catalan, the option of a contextualized interpretation appears not to be available. Thus, languages would vary in whether their *have* verb allows such an interpretation or not – and this suggests that the use of *have* we have been calling non-contextualized is in some sense the basic one, with the availability of (derived) contextualized uses being language-dependent. The factors influencing such variation might include competition with alternative means of expressing existence (e.g. via *be*, an option available in Old Catalan but not Modern Catalan) or with a consolidated division of labor between alternative have-predicates (as in the case of *haver-hi* vs. *tenir* in Modern Catalan, a division that was much less sharp in Old Catalan). However,

the issue of this variation is complex, and we must leave further exploration of it for future research.

4. Alternative accounts of *have*-sentences and the definiteness effect

Most semantic research on existential-*have* has been inspired in Keenan's (1987) original discussion, which suggested that the definiteness effect in *have*-sentences is parallel to that in *there be*-constructions. Additionally, on Keenan's view, the effect was connected to the assumption that the object noun denotes a two-place relation. Here we very briefly review how some subsequent accounts have tackled the data; see Myler (2016), Le Bruyn & Schoorlemmer (2016) and Bassaganyas-Bars (2018) for more substantive reviews of the literature.

We can classify formal semantic analyses of *have* into two major groups. On the one hand, some analyses build closely on Barwise & Cooper's (1981) or Keenan's (1987) accounts of the definiteness effect in *there be*-sentences. On these accounts, the effect results from a pragmatic incompatibility between the semantics of the so-called strong determiners and the existence-asserting function of *there be*-sentences. On the other hand, some analyses are based on the assumption that only property-denoting ($<e,t>$-type) noun phrases can escape the definiteness effect, an idea that harks back to Milsark (1977), who suggested that weak determiners were semantically akin to cardinality predicates. Let us review these in turn.

The clearest example of the first group is Partee (1999), whose explicit goal is to provide a compositional account of Keenan's original observations. Partee's approach starts with the assumption that the objects of existential-*have* always contain relational nouns (of type $<e,<e,t>>$); she then posits that some determiners have variants capable of taking arguments of this type, creating a class of "relational" generalized quantifiers, which is the type that *have* takes as its object argument. To explain the definiteness effect, her logical translation for *have* includes an *exist* predicate identical to that assumed for *there be*-sentences by both Barwise & Cooper and Keenan, thereby completely assimilating *have* with *there be* in that

respect. Partee suggests that there is an alternative version of *have* that is an ordinary transitive verb, save for the fact that it needs context to get content (and looks essentially like Bassaganyas-Bars' proposal for all uses of *have*); this is the version of *have* that deals with any object that is not relational.

Precisely because Partee's analysis is designed to assimilate the analysis of *have* to that of *there be*-sentences, it cannot capture the differences in the definiteness effect between the two types of sentences. Moreover, by making the effect ultimately dependent on the determiner, it fails to account for the facts concerning the interpretation of kind-describing noun phrases, partitives and pronouns.

Tham (2006) and Beavers et al. (2009) extend an analysis like Partee's to sortal nouns, thus predicting that these nouns, like relational nouns, are also subject to a definiteness effect – a welcome consequence, on our view.[27] The strategy they adopt is to relationalize sortal nouns before they combine with *have*, effectively making them two-place nouns subject to the same constraints as relational nouns (a strategy that was already used for nominal possessives by Vikner & Jensen 2002). We take Tham's descriptive observations (on which Beavers et al. build) to be empirically adequate. Nonetheless, unlike the proposal in Bassaganyas-Bars (2018), these analyses cannot fully integrate contextualized and non-contextualized uses of *have*, and need to posit different versions of *have* – or different versions of a relationalizing type-shifter that applies before a sortal noun combines with *have*, in the case of Beavers et al.[28] In addition, as with Partee's proposal, they cannot easily deal with the facts involving kind-describing noun phrases, partitives and pronouns.

Another analysis within this line appears in Sæbø (2009). On this approach, the direct object obligatorily forms a predicative structure

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[27] Myler (2016) could, to some extent, be counted in this group, although he explicitly rejects assimilating the definiteness effect in *there be*- and *have*-sentences, as we already mentioned. His discussion of the facts, however, is somewhat inconclusive (see Myler 2016: 329ff).

[28] Bassaganyas-Bars (2018) does not, however, integrate into his analysis one of the uses of *have* singled out by Tham, which she calls "control-*have*," exemplified in (i). Whether this distinct use needs a separate treatment remains a subject for future research.

(i) A: Where is my wallet?
 B: I think Jan has it.

with an (overt or covert) small clause predicate. The role of *have* is to turn the resulting small clause into a predicate whose variable corresponds to some relational argument within the small clause, which is eventually identified with the sentence subject. Sæbø's treatment of the definiteness effect is, however, explicitly taken from Barwise & Cooper (1981), thus failing to predict the facts illustrated in (14)-(17).

The other group of analysis, whose roots can ultimately be traced back to Milsark (1977), includes Le Bruyn et al. (2013, 2016) and, to some extent, Landman (2004). These analyses argue that *have* is an incorporating predicate which takes *<e,t>*-type objects. Le Bruyn et al. suggest that the role of *have* is to relationalize these predicates, introducing existential quantification over their relational argument along the way. The need for this existential quantifier to bind the relational argument (which therefore cannot be closed off by internal quantification) is used to account for the definiteness effect. This type of approach can capture the fact that the effect obtains both with sortal and relational nouns. It cannot, however, easily predict the full gamut of noun phrase types that yield existential readings as objects of *have* – for example, it will not explain that some necessarily quantificational noun phrases can have such a reading. Like Partee, these authors propose a second, "heavy" version of *have* to deal with contextualized cases, whose denotation is equivalent to the denotation proposed by Bassaganyas-Bars (2018) for all uses of *have* with noun phrase complements.

This latter aspect is the one that most conspicuously illustrates the differences between the analysis presented in section 3.2 and these other accounts. They all start from the assumption that, given that *have* looks like a very special verb, a highly idiosyncratic analysis of its compositional workings, and of the definiteness effect it gives rise to, is called for. Bassaganyas-Bars relies instead on independently motivated assumptions about the behavior of sortal and relational nouns and the way they can be used in discourse, irrespective of the specific workings of *have*. The definiteness effect, and the difference between contextualized and non-contextualized uses, follow from these assumptions, without placing any further requirements on *have*. The semantic peculiarities of this verb are

then reduced to the fact that it denotes a highly underspecified relation that must somehow get a value. Other than that, *have* is an ordinary transitive verb. This analysis, therefore, has better predictive properties while requiring fewer *ad hoc* assumptions.

Discussing the behavior of definite and indefinite arguments in *there be* and *have*-sentences, Hoeksema (1989: 123) already warned that "more headway can be made on the interpretation of existentials if discourse function is considered alongside truth-conditions." Both McNally's and Bassaganyas-Bars' accounts, despite their differences, can be seen as an implementation of this desideratum.

5. Conclusion

We have shown that existential *there be-* and *have*-sentences manifest different definiteness effects that reflect different semantics, and briefly pointed out ways in which the resulting account is more successful than previous accounts of the effect with *have*-sentences. We leave for future research a deeper exploration of why the effects in the two constructions look as similar as they do. However, the principles that have guided our respective analyses suggest that the answer to this question will lie in the pragmatics of discourse referent introduction, rather than in syntactic or semantic factors.

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