Existential Sentences Cross-Linguistically: Variations in Form and Meaning

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Shortened running title: Existential Sentences

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Keywords: existence, locative constructions, possessive constructions, impersonal constructions, typology

Abstract

Though the term “existential sentence” goes back at least as far as Jespersen (1924, 155) and is used in descriptions of many languages to refer to a designated construction, it is difficult to identify exactly what these constructions have in common cross-linguistically. Following McNally (2011), the term is used here to refer to sentence types that are “non-canonical,” whether due to some aspect of their syntax or the presence of a distinguished lexical item (e.g. Spanish *hay*). A representative sample is presented of the different structural resources used to build existential sentences: distinguished existential predicates, on the one hand, and copular, possessive, and expletive or impersonal constructions, on the other. The corresponding variation in the compositional semantics of existentials is then addressed, as is pragmatic or discourse functional variation. The variationist perspective is contrasted with universalist approaches to existentials such as that in Freeze (2001).

1 Introduction

Though the term “existential sentence” goes back at least as far as Jespersen (1924, p. 155) and is used in grammatical descriptions of many languages to refer to a designated sentence type or construction, it is difficult to pin down exactly what these constructions have in common across languages. Jespersen’s definition, according to which “the existence of something is asserted or denied,” is too weak. To give just one example, the English predicate *exist* is used to do exactly this, but linguists do not generally classify sentences such as 1 as existential.

- (1) Only 32 Vermeer paintings exist in the entire world. (Corpus of Contemporary American English (COCA, Davies 2008)

Following McNally (2011), the term will be used here to refer to sentence types that are “non-canonical” in structure, whether due to some aspect of their syntax or the presence of a distinguished lexical item (e.g. Spanish *hay*, Irish *ann*). This non-canonical structure is invariably accompanied by what appears to be a special semantics or discourse function related to introducing the presence or existence of some individual(s) (Beaver et al. 2006, Creissels 2014, though the latter insists that specifically location rather than existence is at stake). Languages tend to use similar building blocks for existential sentences: copular verbs, possessive or locative expressions, expletive pronouns such as English *there*,¹ and special predicates that might be related etymologically to locative or possessive expressions. When existentials are based on copular constructions, the noun phrase that describes the entity whose existence or location is under discussion – hereafter, the *pivot* – typically appears in a different position than it would in ordinary copular sentences.

The position taken in this article is that, while it is reasonable to think that, as a rule, natural languages have a use for a construction that does little more than allow speakers to introduce a new individual into the discourse (by locating it or asserting its existence), the actual construction

¹These are also sometimes called impersonal or “dummy” pronouns. Though these terms reflect the intuition that such pronouns are semantically empty, some analyses of existential sentences assign them some sort of semantic content; see sections 2.2.2 and 3.1.

used in any given language is a function of the existing resources in that language and will vary accordingly in their syntactic analysis. In this sense non-canonicity is crucial: to be non-canonical presupposes that there is something canonical. Since what is canonical differs from language to language, we find corresponding variation in existential sentences cross-linguistically.

However, there is an additional source of variation that has less to do with the set of resources in the language and more to do with the extremely poor descriptive content of existential sentences. If indeed existential sentences are specialized for the introduction of a discourse referent, it will matter little whether this is done using a locative predication, a possessive construction where a location is treated as an abstract possessor, or a dedicated existence predicate. The communicative effect will be roughly the same. Thus, to arrive at a better understanding of existential sentences, we must avoid the temptation to assume that there is a single, underlying semantics or even conventionalized (set of) discourse function(s) that is shared cross-linguistically. Rather, it is more insightful to look at each existential construction within the context of the language in question and, based this language-internal analysis, search for general, typologically valid patterns that contribute to our understanding of the overall organizational principles of language.

Section 2 presents a representative sample of the different types of structural resources for building existential sentences: the use of distinguished existential predicates, copular constructions (including locative predications), possessive constructions, and expletive or impersonal constructions. We will also see that these resources are sometimes used jointly. Section 3 addresses the corresponding variation in the compositional semantics of existentials, as well as pragmatic or discourse functional variation.

One caveat is necessary before the discussion proceeds. Because of the characteristics described above, the syntactic and semantic analysis of existential sentences both for specific languages and cross-linguistically has generated considerable debate. Therefore, the fact that a given construction is chosen here to illustrate a particular strategy for constructing existentials should not imply that all linguists would agree with the most obvious syntactic analysis for the construction. It will not be a goal of this article to address the relative merits of one analysis over another. See McNally

(2015) for references to different analytical possibilities.

2 Existential Sentences: A Representative Sample of Forms

2.1 Special Existential Predicates

Creissels (2014), in a typological study of 256 languages, identifies over 50 with special existential predicates, from a variety of language families. In some, such as Chamorro (Austronesian family; see 2), Hebrew (Semitic; 3), and Spanish (Romance; 4), the predicate is clearly verbal. Both Chamorro and Hebrew exemplify cases where distinct forms are used for positive vs. negative existentials:²

- (2) a. Guäha buteya gi hälum kahun áis.
sg.exist bottle inside box ice
‘There’s a bottle in the icebox.’ (Chamorro; Chung 1987, 5a)
- b. Taya’ lahi guini.
sg.not-exist boy here
‘There is no boy here.’ (Chung 1987, 15b)
- (3) yeš/eyn be’ayot.
EX/not-EX problems
‘There are/are not problems.’ (Hebrew; adapted from Hazout 2004, fn. 1)

In contrast, Spanish (Suñer, 1982) uses a single form of the verb *haber* ‘have’ with a special, nonvarying conjugation in the present indicative tense, *hay*:³

²The glosses in the examples are partially adapted from the original sources to improve consistency in this article. The abbreviations used are: acc=accusative case; ade=adessive case; comp=complementizer; conj=conjunction; cop=copula; def=definite; EX=existential predicate; f, m, n=feminine, masculine, neuter (respectively); fut=future tense; fv=final vowel; gen=genitive case; inf=infinitive; loc=locative (case or pronoun); LocCop=locative copula; nom=nominative case; pres=present tense; pl=plural; PossCop=possessive copula; RefCd=referential concord; refl=reflexive; sg=singular; sm=subject marker; T=tense; 1, 2, 3=first, second, third person (respectively); 1-18=noun class number for Swahili examples.

³In contrast, when used as an auxiliary to form the present perfect indicative, *haber* takes distinct singular and plural forms: *ha/han hablado* ‘has/have spoken.’

- (4) a. Hay una cosa que te quiero decir.
 EX a thing that 2sg.acc want.1sg say.inf
 ‘There is something that I want to tell you.’ (name of a Spanish TV program)
- b. No hay dos sin tres.
 not EX two without three
 ‘(These) things come in threes.’ (Spanish proverb)

In other languages, such as Irish (Celtic; 5) and Hausa (Afroasiatic; 6), the existential predicate has been argued to be nonverbal. McCloskey (2014), p. 347 notes “[a]t least historically, [Irish] *ann* is the third person singular non-feminine form of the preposition meaning *in* and so might be translated ‘in it’.” He argues extensively that, even though Irish existentials often appear with a copular verb (i.e. one equivalent to English *be*), in fact the copula is not essential. Rather, the existential predication involves a so-called “small clause,” which in the most general case serves as a complement to the copula 5*a*, but also can appear as the complement to other predicates, as in 5*b*.

- (5) a. Beidh go leor bia ann.
 be.fut plenty food in-it
 ‘There’ll be plenty of food.’ (Irish; McCloskey 2014, 10*a*)
- b. Is annamh baisteach ann.
 cop.pres rare rain in-it
 ‘There’s rarely (any) rain.’ (McCloskey 2014, 14*c*)

Though the data on Hausa are less clear, Abdoulaye (2006) maintains that its existential predicates are nonverbal, based on the fact that they do not appear in the same position or with the same morphology as verbs. Like Chamorro, Hausa has both positive and negative variants – indeed, two of each. Though he does not discuss the origins of the positive form *àkwai* or the negative forms *baabù* and *baâ* (which appear to be morphosyntactically conditioned variants), Abdoulaye notes that the positive existential predicate *dà* is also used as a comitative preposition and in possessive constructions.

- (6) a. Dà/Àkwai haskee.
 exist light
 ‘There is light.’ (Hausa; Abdoulaye 2006, 2*a*)

- b. Baabù/baâ ruwaa cikin wannàn kwaanò-n.
 not-exist water inside this bowl.def
 ‘There is no water in this bowl.’ (Abdoulaye 2006, 4b)

Interestingly, Abdoulaye argues that the comitative and possessive uses derived diachronically from the existential use, despite the fact that it is more often the existential predicate that is considered derivative (cf. the quote from McCloskey, above).

Finally, Maori represents what might be considered the limiting case of this sort of strategy: A language in which the existential construction consists simply of the pivot nominal, as in 7a. Though Maori has an overt existential predicate in the negative form (see 7b), the corresponding predicate in the positive form has been lost over time.

- (7) a. Āe, he taniwha.
 yes a taniwha
 ‘Yes, there are taniwhas.’ (Maori; Chung & Ladusaw 2004, p. 42, 29a)
- b. Kāhore he taniwha.
 T.not a monster
 ‘There are no taniwhas.’ (Chung & Ladusaw 2004, p. 43, 32a)

Chung & Ladusaw (2004, p. 43) observe that “[t]he nineteenth-century scholars H.W. Williams...and W.L. Williams...cite examples in which affirmative existential sentences are formed with the verb *ai* ‘(there) is’, which is now viewed as archaic. This verb, revealingly, is homophonous with the oblique pronoun *ai*, some of whose functions resemble functions of English *there*.”

Summarizing, special existential predicates often derive from copular verbs, possessive verbs, and nonverbal locative expressions, and occasionally result from the fusion of more than one of these elements; whether this pattern of evolution is universal, or whether Hausa or other languages constitute exceptions, remains to be confirmed.

2.2 Existentials Based on Copular Constructions

Specialization in the form of a distinct predicate is not the only way existential constructions can be distinguished. In many languages, existentials are based on copular constructions, very often with

a locative expression as the other element in the relation. Creissels (2014) found that more than half of the languages in his survey do not have a special existential construction distinct from a locative construction (see also Clark 1978 for additional data from 30 languages, more than half of which are not covered in Creissels' survey). Nonetheless, even if the core syntax of the construction is related to a locative copular predication, other aspects can be non-canonical. In the more basic case, the pivot is the logical subject of the copular predication, and the locative expression, the predicate. However, there also cases for which it has been argued that the pivot is the predicate, and the location or some other element, the subject. We consider these in turn.

2.2.1 The pivot as logical subject

The simplest sort of existential construction based on a locative copular construction (while still being formally distinct in some way) is exemplified by languages like Finnish. As 8*b* shows, Finnish existentials contain exactly the same elements as locative copular sentences – an adessive case-marked locative, a verb translatable as ‘be’, and a nominative case-marked pivot. The only difference is in the relative order of the pivot and locative expressions.

- (8) a. Poika on piha-lla.
 boy.nom be.pres.3sg yard.ade
 ‘The boy is in the yard.’ (Finnish; Huumo 2003, 3)
- b. Piha-lla on poika.
 yard.ade be.pres.3sg boy.nom
 ‘There is a boy in the yard.’ (Huumo 2003, 4)

The fact that there is no difference in case marking in the two sentences suggests that the pivot is the grammatical subject in both, and that we cannot exclude the possibility that the difference between the locative and existential interpretation is purely information structural, though how best to characterize this difference is a pending task.

A variant on this sort of existential construction is found in Swahili (Bantu; see Marten 2013 for recent discussion; see also Christie 1970). According to Marten, Swahili has an existential

construction consisting of a locative copula – *n-po*, *-ko*, or *-mo*⁴ – and the pivot as the subject (as indicated by the presence of agreement morphology on the copula), but the locative phrase is only optionally expressed, as illustrated in 9.

- (9) a. Yu-ko m-geni
sm1-LocCop17 1-guest
'There is a guest.' (Swahili; Marten 2013, 61)
- b. Leo katika Afrika y-a Mashariki yu-ko m-tu
today in 9.Africa 9.gen east sm1.LocCop17 1.person
a-na-ye-wez-a ku-ji-tokez-a na ku-sem-a kuwa Ki-swahili
sm1.pres.RefCd1.be-able.fv 15.refl.come-out.fv conj 15.say.fv comp 7.Swahili
ch-a leo ni mali y-ake?
7.gen today cop 9.wealth 9.his
'Today in East Africa is there a man who can come out and say that today's Swahili is
his own possession?' (Marten 2013, 48a)

This copula does not appear to be a specialized existential predicate, as it is also used in sentences where an adjective is predicated of the subject and which never have an existential interpretation.

Despite the optionality of the locative phrase, Swahili resembles Finnish in that constructions like those in 9 occur alongside alternatives in which the relative orders of the pivot, copula and locative phrase (if expressed) are different. Marten claims that whenever the locative phrase appears after the copula, the sentence has a locative interpretation; when the pivot appears after the copula, the interpretation is generally existential, in a pattern clearly reminiscent of Finnish. However, when the locative phrase is absent, things are a bit more complicated: In some cases the interpretation is locative, as in 10a, while in others, it appears to be existential-like, as in 10b.

- (10) a. M-geni yu-ko
1-guest sm1-LocCop17
'The guest is there.' (Marten 2013, 60)

⁴The agreement system in Swahili, as other Bantu languages, is based on noun classes; Swahili has 18 of them, the last three of which, 16, 17, and 18, are locative. Each of these copulas corresponds to a different noun class and does double duty as what Marten refers to as "referential concord," though he argues that they are not used as concord in the examples discussed here. In the Swahili glosses, numbers indicate noun class.

- b. ... wa-tu wa-po ...
 ... 2.person sm2.LocCop16
 ‘...people are available...’ (i.e. ‘there are people’; Marten 2013, 49*b*)

Though overall the Swahili facts suggest that, as in Finnish, information structure plays a role in making available an existential interpretation, examples like 10*b* suggest that information structure alone may not entirely determine the interpretation. Interestingly, a similar – indeed, stronger – conclusion is reached by Partee & Borschev (2007) for Russian.

Partee & Borschev (2007) argue that not information structure but rather something they call “perspective structure” distinguishes locative and existentials sentences in Russian (see below). Russian locative and existential sentences look parallel to those in Finnish in the affirmative past; see 11.

- (11) a. Doktor byl v gorode.
 doctor.nom.m.sg was.m.sg in town
 ‘There was a doctor in town.’ (Russian, Partee & Borschev 2007, 2*b*)
- b. V gorode byl doktor.
 in town was.m.sg doctor.nom.m.sg
 ‘There was a doctor in town.’ (Partee & Borschev 2007, 2*a*)

However, they differ in the affirmative simple present, where a special form of the copula is used for the existential but not the locative (see 13), and in the negative form, where genitive case always marks the pivot but not always, or not necessarily, the subject of the locative predication (see 14).⁵

- (13) a. Kolja (*est’) v Moskve.
 Kolja.nom BE in Moscow

⁵Partee & Borschev note that the distributions of the copula and the genitive of negation are highly complex in Russian, with particular controversy arising over examples like 12, where the subject appears in the genitive despite being definite (see below on this point), and the negated copula is the form generally reserved for existential sentences (contrast 14*a*).

- (12) V Londone sejčas net Peti.
 in London now neg.is Petja.gen
 ‘Petja is not now in London.’ (Partee & Borschev 2007, 52*a*)

See their work and the references cited therein for additional discussion.

Intended: ‘Kolja is in Moscow.’ (Partee & Borschev 2007, 35a)

- b. V Moskve est’ tramvai.
in Moscow BE street cars.nom.pl
‘There are street cars in Moscow.’ (Partee & Borschev 2007, 37a)

- (14) a. Kolja ne v Moskve.
Kolja.nom not in Moscow
‘Kolja is not in Moscow.’ (Partee & Borschev 2007, 71)
- b. V xolodil’nike net piva / *pivo.
in refrigerator neg.is beer.gen / beer.nom
‘There is no beer in the refrigerator.’ (Partee & Borschev 2007, 66)

These additional diagnostics are interesting not only in their own right, but also because they allow one to observe that the existential interpretation in Russian is not simply a matter of information structure, if word order is taken to an indicator. Existential sentences are, in fact, found with other words orders:

- (15) Studentov na koncerte ne bylo.
students.gen at concert neg was
‘There were no students at the concert.’ (Partee & Borschev 2007, 21b)

What is less clear is that no other syntactic differences are involved. For example, 15 shows that the copula does not agree with the pivot. The lack of agreement is accompanied by the presence of genitive case on the pivot, rather than the nominative case typical of subjects. This could indicate that the pivot is not a typical subject in 15, while it would appear to be in 13b; the existential sentence might be an example of an impersonal construction like those discussed in section 2.4 (see Chvany 1975, Babby 1980, Pesetsky 1982 and other references cited in Partee & Borschev 2007 for further discussion). Partee & Borschev do not take a definitive position on this point, but maintain that both existential and locative sentences describe a basic proposition of the schematic form BE(THING, LOC(ation)), and argue that the difference between the two sorts of sentences is due to a difference in what they call “perspective structure,” defined as follows:

- (16) **Perspective structure:** An “existence/location situation” may be structured either from the perspective of the THING or from the perspective of the LOCation. We use the term

Perspectival Center for the participant chosen as the point of departure for structuring the situation. (Partee & Borschev 2007, 19)

They suggest (p. 150) that perspective structure is related to diathesis – in other words, that essentially the same proposition could be expressed by two distinct syntactic structures – but they leave the development of this idea for future research.

The possibility that existentials and locatives are related via diathesis moves us, as we shall now see, towards the second general sort of existential based on a copular construction, namely that in which the pivot serves as a predicate, rather than as a subject.

2.2.2 The pivot as logical predicate

Though virtually every conceivable syntactic analysis of the English existential construction, as in 17*a*, has been defended at one point or another, here we will assume the analysis developed first by Jenkins (1975) and later developed more fully by Williams (1984, 2006), and with slight variations, by McNally (1992), Hazout (2004) and Francez (2007). On this analysis, English existentials are considered fully analogous to copular sentences such as 17*b*, with the expletive *there* as the subject, the pivot as the predicate, and any additional phrase after the pivot (typically known as the “coda” phrase) an adjunct or modifier of some sort. This view establishes a parallelism between existentials and other sorts of copular sentences with expletives, such as 17*c*-17*e*.

- (17)
- a. There are two types of diesel engines used to power large ships (COCA)
 - b. Macabeo and parellada are two types of grape.
 - c. That’ll be our guests arriving.
 - d. It’s your son on the phone.
 - e. This is Robin.

The main argument for such an analysis is its simplicity. In every respect other than subject-verb agreement, which depends on the pivot, the expletive behaves as a subject – for instance, it inverts with the auxiliary in question formation, 18*a*, something impossible for fronted constituents that

are not subjects (compare 18*b*, which is based on 18*c*).

- (18) a. Are there two types of diesel engines?
b. *Were first in line two young guys in suits?
c. First in line were were two young guys in suits.

Initially it might be less obvious that the pivot is a predicate, since pronominal anaphora to the pivot works differently from that to typical predicate nominals. For example, in 19*a*, the pronoun *she* appears to be anaphoric to *a small child*; however, in 19*b* it is clearly anaphoric to *Martina*: we cannot infer from the second sentence in 19*b* that small children in general like to read.

- (19) a. There is a small child in line. She is cute.
b. Martina is a small child. She is cute.

However, one crucial similarity between the existential pivot and a predicate nominal involves the range of determiners that can appear in each. It has long been acknowledged that not just any kind of nominal can appear as the pivot in any circumstances (see Milsark 1974, 1977, Barwise & Cooper 1981, Keenan 1987, Lumsden 1988, McNally 1992, Ward & Birner 1995, Abbott 1997, among many others, for different accounts of this restrictions, known as the “definiteness restriction” or “definiteness effect”; see section 3 for further discussion). Rather, definite and demonstrative determiners are subject to pragmatic restrictions, and necessarily quantificational determiners, such as *each* and *every*, are licensed only when they quantify over properties or similar higher-order entities, such as kinds or types. This latter restriction also applies to predicates in copular sentences, as noted by Partee (1987), following observations in Williams (1983).

- (20) a. ??There is every diesel engine used to power large ships.
b. There was every kind of news in the paper: accidents, shipwrecks, sports, and politics.
(J. Joyce, *Portrait of the Artist as a Young Man*, retrieved from
<http://www.gutenberg.org/files/4217/4217-h/4217-h.htm>)
c. ??Mary considers that every island. (Partee 1987, 10)

- d. This house has been every color. (Partee 1987, 11)

Partee explains the contrast in 20c-20d as follows. Assume that the predicate nominal in copular sentences must contribute a property. Certain kinds of determiners, such as the definite and indefinite articles, demonstratives, and cardinal determiners such as *two* or *many*, are compatible with a property-type interpretation for the entire nominal, independently of the semantics of the noun.⁶ Other determiners can only be understood as quantifying over the sort of object described by the noun. If the determiner quantifies over ordinary entity, as in 20c, the quantificational nominal will not be able to appear in predicate nominal position – a general property of quantificational nominals is that the domain of entities the determiner quantifies over must be of a sort that could occupy the syntactic position occupied by the quantificational nominal. In contrast, if the noun describes a property, and thus the determiner quantifies over a property, the nominal will be acceptable. This can be seen easily in the contrast in acceptability of the pseudo-logical paraphrases in 21:

- (21) a. ??Every island x (Madeira, Tenerife, Menorca, ...) is such that Mary considers that x .
b. Every color x (blue, yellow, red, ...) is such that this house has been x .

McNally (1992) extends this explanation to the contrast in 20a-20b.

The most obvious challenge for an analysis of existentials on which *there* is the subject and the pivot, the predicate, is semantic: How can *there*, which appears not to be referential, serve as the subject of a predication? We address this question in section 3.1.

Existentials based on copular constructions with the pivot mapped to the predicate have only been explicitly argued to exist in English and Hebrew (Hazout 2004, Francez 2007). It may be that they are truly rare; however, it is also possible that such analyses simply have not been considered because they clash with the initial intuition that the pivot introduces a discourse referent. If a semantic and pragmatic analysis can account for this intuition under a treatment of the pivot as a predicate, the door may be opened to considering it for additional languages. The complexity of

⁶Explaining in detail why this is so is beyond the scope of this article, though there will be some additional discussion in section 3. See also Partee (1987).

the data from Russian, mentioned in the previous section, and Partee & Borschev’s observation that information structure alone cannot account for the differences between existential and locative constructions in that language, suggests that the pivot-as-predicate analysis is worth exploring for more languages.

2.3 Existentials Based on Possessive Constructions

Linguists have long observed that existential constructions are also related to possessive constructions in many languages (see e.g. Lyons 1967, Clark 1978, and references cited there for early discussion; Creissels 2014 identifies well over 40 languages manifesting this sort of existential). Though the details vary from language to language, as a rule the pivot occupier has the same grammatical function as the possessee in a transitive possessive construction, as shown, for example, by identical case marking. The difference between the existential and possessive lies in the absence of an overt subject in the former construction. Modern Greek (with the verb *écho* ‘have’) exemplifies this sort of existential.

- (22) a. Ta chōriá den échoun neró.
the villages neg have.pres.3pl water.acc
‘The villages don’t have water.’ (Modern Greek, Creissels 2014, 25a)
- b. Den eíche Germanóus sto chōrió.
neg have.past.3sg Germans.acc in-the village
‘There were no Germans in the village.’ (Creissels 2014, 25b)

In one variant of this strategy, a locative pronoun accompanies the possessive verb, as in Catalan and French (the latter of which, in addition, has an expletive pronoun of the sort to be discussed in the next section).⁷

- (23) hi ha un tresor amagat a dins.
loc has a treasure hidden inside
‘There is a treasure hidden inside.’ (Catalan, retrieved from

⁷It should be noted *haver* ‘have’ was used as a transitive verb of possession only in older varieties of Catalan; in Modern Catalan, *tenir* ‘have’ is used for transitive possession. See Bassaganyas (2015) for recent discussion.

<http://bradib.assembleadocentsib.cat/spip.php?article58>)

- (24) a. La chambre a deux lits.
the room has two beds
'The room has two beds.' (French, <http://www.chambresdhotelslafougeraie.fr/chambres/>)
- b. Il y a trois chambres et deux salles de bain...
it loc has three bedrooms and two bathrooms
'There are three bedrooms and two bathrooms...' (retrieved from
<https://www.pinterest.com/casadyfrench8/ma-maison-de-reve>)

Swahili (Bantu) has a similar construction based on the predicate *-na*, which Marten (2013) describes as a possessive copula and Creissels (2014) calls a comitative predicate (equivalent to English 'be with'). In this language, existentials and possessives are distinguished in that the copula in the former construction bears locative noun class marking, while in the latter the copula bears the same noun class marking as the possessor.

- (25) a. Juma a-na wa-nafunzi wa-tano.
Juma sm1.PossCop 2.student 2.five
'Juma has five students.' (Swahili, Marten 2013, 4b)
- b. Ku-na ma-endeleo sana.
sm17.PossCop 6.development much
'There is a lot of development.' (Marten 2013, 5)

In all of these constructions, agreement and other morphosyntactic facts strongly suggest that the pivot is not the subject, and thus that it is analogous to a possessee. What is less clear, much as in the case of the existentials discussed in section 2.2.2, is what, if anything, plays a role analogous to the possessor. The locative marker in Swahili might suggest that some more or less abstract location fulfills this function, though Marten observes that such markers can be strictly expletive, like English *there* (and see Demuth 1990 for a similar argument for locative noun class agreement in Southern Sotho, another Bantu language). Bassaganyas (2015) offers somewhat more substantive, if still inconclusive, evidence that the locative *hi* in Old Catalan existentials indicated the presence of a locative subject. On the other hand, in Modern Greek there is no morphology whatsoever that corresponds to the putative possessor, raising the question as whether a single semantics can or

should be maintained for all of these constructions, despite their similarities, a point to which we return in section 3.1.

2.4 Existentials Based on Expletive/Impersonal Constructions

The final strategy for forming existential sentences discussed in this review involves the use of an expletive pronoun in the position where the pivot would occur in a canonical predication, and concomitant displacement of the pivot. Such sentence types are often described as “impersonal.” In some languages, this strategy is combined with one of the others mentioned above – it has already been shown that French and English are examples.

The Germanic languages offer several variations on this strategy. First, the choice of expletive varies: Alongside English *there*, which is ostensibly related to a locative pronoun, we find nonlocative pronouns such as the neuter personal *es* ‘it’ in German, 26a, and the demonstrative *það* ‘that’ in Icelandic, 26b.

- (26) a. Es gibt viele Gänseblümchen in meinem Garten.
it gives many daisies in my garden
‘There are many daisies in my garden.’ (German, adapted from Czinglar 2002, 2a)
- b. það eru mýs í baðkerinu.
that are mice in bathtub.def
‘There are mice in the bathtub.’ (Icelandic, Platzack 1983, 1)

Second, we find variation in the verb. Besides *be*, as in English and Icelandic, and *avoir* ‘have,’ as in French, we see *geben* ‘give’ in 26a and what Hopper (1998) refers to as the “medio-passive” form of the verb *finna* ‘find’ in Swedish (counterparts of *find* are also used in other Scandinavian languages).

- (27) Det finns barn som gärna äter spinat.
this find.mp children who gladly eat spinach
‘There are children who gladly eat spinach.’ (Swedish, Czinglar 2002, 19b)

Third, e.g. Platzack (1983) has argued that in some Germanic languages the expletive is a subject, while in others, it is a topic. Clear evidence of subject status for the expletive in German comes

from the possibility of subject-auxiliary inversion.⁸

- (28) Gibt es viele Gänseblümchen in meinem Garten?
 gives it many daisies in my garden
 ‘Are there many daisies in my garden?’

In contrast, Platzack (p. 84) claims that in other cases, the expletive disappears, indicating that it is not a subject but rather simply appears to satisfy the constraint in Germanic that some expression must precede the tensed verb in ordinary declarative main clauses. The German sentences in 29, which looks superficially like an existential but contains the verb *sein* ‘be’ instead of *geben*, illustrate this case.

- (29) a. Es sind viele Gänseblümchen in meinem Garten.
 it are many daisies in my garden
 ‘There are many daisies in my garden.’ (Czinger 2002, 3a)
- b. In meinem Garten sind (*es) viele Gänseblümchen.
 in my garden are (*it) many daisies
 ‘There are many daisies in my garden.’ (Czinger 2002, 3b)

The fact that 29 contains a different verb from 26a raises an important question: Are both existential sentences? In Platzack (1983) and other works on existentials in Germanic, the term “existential” is frequently used to refer to a broad range of sentence types containing an expletive, with arguably special forms such as the German *es geben* not always being distinguished. Applying this criterion to English, sentences such as the following, from COCA, would also count as existential:

- (30) a. There exists a vast literature about babies...
- b. In his room, tacked up on the wall, there hung a large map of the city of Sao Paulo.
- c. ...one day there arrived in Montale’s mail a privately published little volume of poetry
 printed on cheap paper...
- d. ...one day there strolled into the five-and-dime a rangy young fellow...
- e. ...there ruled in Ireland great Kings...

⁸Platzack himself does not discuss the *es geben* construction and does not make this specific claim about it.

In addition to the presence of an expletive, these sentences share with existentials a similar function of introducing a new discourse referent or presenting for the first time in a discourse an already familiar individual. However, Ross (1974), Aissen (1975), and others have observed that there are also differences between the sentences in 30 and *there be* sentences. For this reason, those in 30, particularly 30c-30e, where the pivot is postposed after a locative phrase, are generally distinguished as presentational, rather than existential, *there* constructions. Similar considerations should apply when analyzing the family of impersonal sentences in other languages.

2.5 On the Syntactic Analysis of Existentials

Despite the morphosyntactic variation observed in the data reviewed in this section, many linguists have tried to capture the similarities between the different types of existential sentences through syntactic analysis. The attempt in Freeze (2001) is illustrative. Freeze proposes that, universally, not only existential, but also locative and possessive sentences have the underlying syntactic structure in 31 (see e.g. Haegeman (1991) for background on the basic assumptions concerning phrase structure and movement in the theoretical framework Freeze adopts; see IP = inflectional phrase, NP = noun phrase, PP = prepositional phrase). In this framework, sentences have a base syntactic representation that reflects a hypothesis about the underlying propositional structure. In this case, a P-mediated relation between some entity (the THEME) and a location – highly reminiscent of Partee & Borschev's BE(THING, LOC) proposition.

Movement and other operations are used to derive the surface syntactic form. In 31, the main subject NP is empty in this base structure, being projected only to fulfill the theory-internal requirement that all base structures include such a subject position. In the course of deriving the final structure, this position can be filled by either the THEME or LOC phrases, yielding locative predications and Russian-like existential constructions, respectively. It can also be filled by an expletive, yielding English-like existentials. Freeze also hypothesizes that the contents of the P node can move and incorporate into the position occupied by BE, the result being spelled out as a possessive verb. When combined with the option of the THEME, LOC, or expletive occupying the subject position, the result is possessive, Greek-style existentials, and French-style existentials, respectively.

Though very powerful as an attempt to capture the relation between these different types of sentences, this sort of unified syntactic approach can also be criticized. As discussed in Gaeta (2013), it arguably conflates in the same analytical model the synchronic sentence structure (in the form of the resulting output) simultaneously with both typological and diachronic analysis: the typology being reflected in the different options for deriving the output from the input; and the diachrony, in the parallel derivations, in any given language, for existential and locative or possessive constructions, respectively. Ironically, however, this conflation obscures both typological variation and diachronic development by implicitly placing greater importance on capturing broad

cross-linguistic similarities rather on capturing the coherence of the existential within the system of any given language. Gaeta provides numerous examples of how an alternative approach that takes syntactic variation at face value leads to a deeper understanding of why existentials look the way they do in each language.

In addition, analyses like the one in 31, in assigning the same base structure to existentials universally, effectively constitute the hypothesis that the core proposition expressed by existentials is the same universally. The next section calls into question this hypothesis.

3 Variation in Meaning

3.1 Semantic Variation

If we assume even a weak form of the principle of compositionality for natural language, according to which the meaning of a complex expression is a function of the meaning of its parts and the morphosyntactic operations by which they are combined (see Werning et al. 2012 for further discussion), then it should be obvious that that, if there is no single construction that can be described as “existential” universally, there is also no single “existential proposition,” even if, cross-linguistically, those constructions identified as existential prove to be truth conditionally equivalent. It is therefore perhaps not surprising that we find a variety of explicit or implicit proposals for the existential proposition. Interestingly, all but one of them have been proposed for the English existential construction, and we can thus use that construction to illustrate.

One highly influential analysis treats existentials as semantically identical to ordinary copular (including progressive and passive) sentences in English. Thus, the compositional semantics of the sentences in 32a-32b could be represented in predicate logic as in 32c, where the indefinite *a baby* is assumed to denote the entity returned by a choice function f_i on the set denoted by *baby* (see Reinhart 1997, Kratzer 1998 for different implementations).⁹

⁹Space precludes presenting an introduction to formal semantic representations here. See e.g. Heim & Kratzer (1998) for an introduction.

- (32) a. There was a baby crying.
 b. A baby was crying.
 c. **crying**($f_i(\lambda x.\mathbf{baby}(x))$)

Such a semantics is implicit in the small clause analysis of existentials (e.g. Stowell 1978, as well as the slightly different syntactic analysis in Moro 1997), which can be seen as a more general precursor to the analysis in 31. It would also conceivably be appropriate for existentials related to copular constructions in which the pivot is clearly a subject, and possibly also for Germanic-like existentials in which the construction appears to involve simply displacing the pivot from preverbal position and introducing an expletive pronoun.¹⁰

A second analysis, exemplified in 33, takes the coda phrase to be an adjunct or modifier in the existential proposition and effectively treats *there be* as a unit equivalent to the predicate *exist*.

- (33) a. There is a God.
 b. **exist**($f_i(\lambda x.\mathbf{god}(x))$)

This sort of analysis (with differences in detail) was first proposed by Barwise & Cooper (1981) and could be considered for languages in which there is a dedicated existential predicate. Indeed, a slight variant on this analysis is proposed for Maori in Chung & Ladusaw (2004). Specifically, Chung & Ladusaw point to the similarities of Maori existentials to noun incorporation constructions (intuitively similar to e.g. *lip-read* in English; see Hall 1956, Lamberty & Schmid 2013 on English; and Mithun 1984 on incorporation more generally). They argue that the pivot denotes a property, rather than an entity, and thus it combines with the existential predicate via a modification-like composition operation they term **Restrict**. **Restrict** conjoins the existential predicate with the predicate contributed by the pivot; an independently needed operation of existential closure (**EC** in 34b) converts the predicate into a well-formed proposition.

¹⁰Interestingly, although at first blush it would also seem to underlie the classic *there*-insertion analysis in Transformational Grammar (Milsark 1974), Milsark's informal semantics for existentials arguably has more in common with the analysis proposed in McNally (1992), illustrated in 35, below.

- (34) a. Kāhore he taniwha.
 T.not a monster
 ‘There are no taniwhas.’ (= 7b)
- b. $\mathbf{EC}(\mathbf{Restrict}(\lambda x[\neg \mathbf{exist}(x)], \lambda x[\mathbf{monster}(x)])) = \exists x[\neg \mathbf{exist}(x) \wedge \mathbf{monster}(x)]$

Insofar as it treats the pivot as semantically equivalent to a predicate, this analysis, unlike the previous two, accounts directly for the restriction on quantificational pivots illustrated in 20 in section 2.2.2.¹¹

Chung & Ladusaw’s analysis was also inspired in the semantics for existentials proposed in McNally (1992). On this analysis, *there be* denotes a predicate of higher order entities (specifically of what Chierchia & Turner (1988) call “entity correlates of properties”), paraphrasable as ‘(to be) instantiate(d).’ Thus, the representation of 33a would be as in 35, where $\cap$ is an operator that turns properties into their entity correlates.

- (35) $\mathbf{instantiate}(\cap \lambda x.\mathbf{god}(x))$

McCloskey (2014) has recently defended this analysis for Irish. However, if in fact the syntax of English existentials is exactly parallel to that of copular sentences, with the pivot functioning as the predicate, as suggested in section 2.2.2, it is not obvious that it is the best analysis for English. On the basis of this and other considerations, Francez (2007) argues that the pivot is the semantically the main predicate in English existentials, applying to a what he calls a contextual domain. Francez (2007, p. 73) defines contextual domains as in 36.

- (36) For every element α of type τ , let d_α be the *contextual domain* of α , where $d_\alpha =_{def}$
 $\lambda y_{\tau'}[R_{\langle \tau, \langle \tau', t \rangle \rangle}(\alpha, y)]$.

Though somewhat abstract, the intuition is that the contextual domain is the set of entities related to some other entity in the context – for example, a location (as in *There was a book on the table*, where the domain could be understood as the set of entities on the table), or the universe of discourse (as

¹¹See their work, as well as the analysis of Kalallitut (West Greenlandic) in Van Geenhoven (1996), for further details; see McNally (2009) for a comparison of this sort of analysis with the one in 35.

in *There is a God*). In other words, rather than denoting a property of ordinary individuals, the pivot in the existential denotes a property of sets, that is, a generalized quantifier, as illustrated in 37, where d_u stands for the universe of discourse.

- (37) a. *a God*: $\lambda P[\mathbf{a}(\mathbf{god}, P)]$
 b. $\mathbf{a}(\mathbf{god}, d_u)$

On this sort of analysis, the expletive could be understood as signalling that the argument of the pivot is a contextual domain, solving the mystery of what the expletive could contribute semantically on an analysis of the existentials on which the pivot is analogous to a predicate nominal. On the other hand, it treats the pivot as of a different semantic type from ordinary predicate nominals, which are generally assumed to denote properties of ordinary entities once combined with the copula.

Finally, analyses of existentials that build explicitly on the semantics of possessives are rare, but Bassaganyas’s (2015) analysis of Old Catalan existentials offers a recent example. Following Barker’s (1995) semantics for English possessive ’s, Bassaganyas takes the verb *haver* ‘have’ to denote a maximally general relation π , which can be pragmatically resolved as possession when the subject is human, but can also be resolved as a very general “central coincidence” (Hale 1986) or location relation. An adaptation of Bassaganyas’ analysis appears in 38b for the Old Catalan sentence in 38a. He posits that *en Ungria* ‘in Hungary’ denotes a contextually-determined location in Hungary, represented as l_j in 38b, which functions as the subject of *haver*. The object *un rey* ‘a king’ is argued to denote a property and is composed with *haver* via an operation like **Restrict**, with the result in 38b. Given that the subject is a location, π is pragmatically resolved as a location relation.

- (38) a. En Ungria ach un rey
 in Hungary had.3.sg a king
 ‘There was a king in Hungary.’ (*La fiyla del rey d’Ungria*, 14th c.)
 b. $\exists x[\pi(l_j, x) \wedge \mathbf{king}(x) \wedge \mathbf{in}(\mathbf{Hungary}, l_j)]$

Given the extremely poor descriptive content of the copula, π , and predicates such as **exist** or **instantiate**, under the right circumstances any of these analyses can be used to construct a proposition that is true in exactly the same circumstances as any other. This fact, together with the general tendency to pursue a maximally similar syntactic analysis for existential sentences cross-linguistically, has arguably contributed to the absence to date of work on typological variation in the semantics of existentials.

This concludes the overview of the different sorts of propositions that existential sentences might express. One last issue remains, namely the variation in the restrictions on the distribution of non-quantificational pivots, the remainder of the definiteness restriction.

3.2 Pragmatic Variation

The definiteness restriction is perhaps the characteristic of existential sentences that has generated the largest literature in theoretical linguistics. Setting aside quantificational pivots such as those in 20, the restriction refers to the oddness, at least in certain contexts, of certain definite and demonstrative pivots, such as the following:

(39) There was it / Rex / the dog / that dog in the yard.

Syntactic, semantic, and pragmatic accounts of the restriction have been proposed. In this section, rather than focusing on the analyses themselves, we consider some of the variation in the manifestations of this restriction (see McNally 2015 for references both to full range of analyses and criticisms of them).

In very general terms, the intuition behind some characterizations of this restriction (e.g. Barwise & Cooper's) is the idea that, if existential sentences are used to assert the existence of an individual, that individual should not be described using an expression that presupposes its existence, such as definites, demonstratives, proper names, and pronouns typically do. Other authors draw not on the semantic notion of existence but rather on discourse pragmatic notions such as novelty: for example, Ward & Birner (1995) maintain that the pivot must contribute what Prince (1992) referred

to as a “hearer-new” discourse referent, i.e. one that not only has not been previously mentioned in the discourse, but indeed is not familiar to the hearer at all.

However, one notorious fact about the definiteness restriction is the slipperiness of the data. Many examples of definites, demonstratives, and proper names are attested in English existentials in corpora. These exceptions have sometimes been claimed be limited to ‘list’-like environments (see Rando & Napoli 1978 and 40*a*, below) or to morphologically definite but semantically somehow indefinite nominals (see Woisetschlaeger 1983 and 40*b*), but Ziv (1982), Ward & Birner (1995), Abbott (1997), and others have shown that this is not the case, as the examples in 41 attest (from Abbott 1997, her 4*a* and 7*b*, respectively).

- (40) a. Ricci’s three friends are waiting near the museum. ... There’s Kate Jones ... There’s Kate’s boyfriend, Antony, who has a job with British television. And there’s Ricci’s boyfriend, Matthew Frauman... (COCA)
- b. There was the wedding photo of a young black couple among his papers. (Woisetschlaeger 1983, p. 142)
- (41) a. I think there was one flight where we had one problem. It wasn’t ours, but there was that one flight. [Challenger commission transcripts, 4/2/86; = Ward & Birner (1995), 10]
- b. CT: It’s just not something the Midland Symphony is going to be able to pull off.
KC: That’s true – there is that. [Overheard conversation explaining the lack of recordings of a concerto because of the difficulty of the orchestral parts (5/1/96)]

Abbott (1997) concludes based on such examples that there is no one single discourse function associated with English *there*-existentials, and thus that simple characterizations of the restriction in terms of hearer-newness are not viable.

Cross-linguistic variation in the definiteness restriction is also well known but has not been systematically analyzed. Beaver et al. (2006) provide perhaps the best developed attempt to capture this variation. Building on Mikkelsen’s (2002) analysis of Danish, Beaver et al. present an account

that builds on the premise that existentials are non-canonical sentence types that differ from their canonical counterparts in the syntactic or information structural status of the pivot: If the pivot is a subject at all in existentials, it is not a canonical subject – for example, it is not likely to be a sentence or discourse topic. The definiteness restriction is then a manifestation of the following hypothesis.

- (42) **Subject properties hypothesis:** NPs that exhibit properties associated with subjecthood are attracted to constructions involving a canonical subject, whereas those that do not display such properties are attracted to constructions that do not involve canonical subjects.
(Beaver et al. 2006, 11)

They further argue that this hypothesis predicts that the definiteness restriction will be gradient, that we will find concomitant “anti-definiteness” effects (i.e., noun phrases that like to appear in pivot position will resist canonical subject position), and that variation will be systematic, such that, across languages, “two NP types that are ordered in relation to their propensity for subjecthood will not switch their order in another language” (p. 24). For example, in various hierarchies related to subject selection and cognitive status or salience, pronouns are ranked more highly than proper names or other definite noun phrases (see e.g. Silverstein 1976, Gundel et al. 1993). Therefore, all things being equal, a pronoun should be less likely to occur as a pivot than a proper name or definite, and if there is a language that allows pronouns in pivot position, it should allow definites, while the reverse should not hold. Beaver et al. test their proposal through a comparative quantitative study of English, Dutch, Hebrew, and Russian, with promising, if still preliminary, results. Their effort should inspire further empirical work grounded in a detailed analysis of the information structural differences between existentials and their canonical counterparts in a broad range of languages.

4 Conclusion

This survey of the variation in form and meaning of existential sentences is very much in the spirit of the view defended in Gaeta (2013), insofar as it does not presuppose that there is a universal exis-

tential syntactic structure or proposition. In some languages there is clear evidence for a specialized construction, but in others, the evidence is less clear. For the latter languages, as Ziv (1982), p. 84, observes, the term “existential *sentence*” is a misnomer; at most we might be able to talk about an existential construal or use. If the four decades of research since the publication of Milsark’s (1974) influential analysis of English *there*-sentences and Clark’s (1978) seminal typological survey have spawned a large literature emphasizing the commonalities between existential, locative, possessive and impersonal sentences across languages, perhaps it is now time to focus more on the insights we can gain from careful attention to the cross-linguistic variation in these constructions and their role in the internal logic of the individual languages in which they appear.

Acknowledgments

Thanks to Josep M. Fontana for discussion. Financial support was provided by Spanish MINECO grant FFI2013-41301-P and an ICREA Academia award.

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