

RECHERCHES
LINGUISTIQUES
DE VINCENNES

Recherches linguistiques de Vincennes

42 | 2013

Weak definites across languages: theoretical and
experimental investigations

Weak definites refer to kinds

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Electronic version

URL: <http://journals.openedition.org/rlv/2169>

DOI: 10.4000/rlv.2169

ISSN: 1958-9239

Publisher

Presses universitaires de Vincennes

Printed version

Date of publication: 1 December 2013

Number of pages: 33-60

ISBN: 978-2-84292-397-6

ISSN: 0986-6124

Electronic reference

Ana Aguilar Guevara and Joost Zwarts, « Weak definites refer to kinds », *Recherches linguistiques de Vincennes* [Online], 42 | 2013, Online since 01 March 2014, connection on 02 May 2019. URL : <http://journals.openedition.org/rlv/2169> ; DOI : 10.4000/rlv.2169

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WEAK DEFINITES REFER TO KINDS

ABSTRACT

This paper presents an analysis of weak definites (*e.g. to answer **the phone***) as introduced by Carlson and Sussman (2005). The proposal is that these definites refer to kinds, which are instantiated by ordinary individuals when they combine with object-level predicates. This combination is made possible by a lexical rule that lifts object-level predicates to kind-level predicates, and incorporates into their denotation a predicate that represents the stereotypical usages of the kinds. This analysis accounts for most of the peculiar properties of weak definites.

KEYWORDS

Weak definites, reference, kind, definite generics.

1. Introduction

Weak definites, like to *answer the phone*, to *take the train* and to *go to the hospital*, are definites that do not refer to uniquely identifiable individuals (Carlson and Sussman 2005). Consequently, they felicitously describe contexts in which more than one entity satisfies their descriptive content. For example, sentence (1) is an accurate summary of a situation in which Lola traveled by train from Amsterdam to Nijmegen and made a transfer halfway (*i.e.* she took two trains, one from Amsterdam to Utrecht and another one from Utrecht from Nijmegen):

- (1) Lola took the train from Amsterdam to Nijmegen.

Another consequence of the lack of uniqueness is that weak definites (2a), in contrast to regular definites (2b), display sloppy identity in elliptical contexts. From now on, we use the symbol # to indicate when a definite does not receive any weak reading:

- (2) a. Lola went to the hospital and Alice did too.
(Lola and Alice could have gone to different hospitals)
b. Lola went to #the hotel and Alice did too.
(Lola and Alice must have gone to the same hotel)

In addition to non-unique reference and sloppy identity, weak definites display the following special properties (also originally described by Carlson and Sussman 2005). First, they receive ‘narrow scope’ interpretations when they interact with quantified expressions:

- (3) a. Every boxer was sent to the hospital.
(Each boxer could have been sent to a different hospital)
b. Every boxer was sent to #the hotel.
(All the boxers were sent to the same hotel)

Second, weak definites display lexical restrictions: not every noun can occur in a weak definite configuration (4) and not every verb can govern a weak definite (5).

- (4) a. Martha listened to the radio.
b. Martha listened to #the walkie talkie.
(5) a. Martha listened to the radio.
b. Martha fixed #the radio.

Weak definites also display restrictions on modification. Typically, the weak reading disappears if the nouns are modified (6a). Only a few adjectives establishing subtypes of objects are acceptable (6b).

- (6) a. Lola went to #the old hospital.
b. Lola went to the psychiatric hospital.

Weak definites typically occur in the object position of verbs and prepositions (7). When the same definites occur as subjects of episodic sentences, they can only be interpreted as specific definites (8):

- (7) Martha was sent to the hospital.
 (8) # The hospital was closed today.

In contrast, the same definites that can be interpreted as weak definites in appropriate configurations can also occur in generic sentences:

- (9) The hospital is where you go to get healthy.

There are a few other similarities between weak and generic interpretations of definites. For example, generic definites also do not accept modification (10) unless they are modified by adjectives that create subclasses of objects (11):

- (10) ?? The old hospital is where you go to get healthy.
 (11) The public hospital is where you go to get healthy.

On the other hand, in contrast to sentences with generic definites, sentences containing weak definites typically display enriched meanings, that is to say, they carry more information than what is conveyed by the straightforward composition of their constituents:

- (12) Eva called the doctor = Eva called a doctor + she asked for medical assistance.

Weak definites seem to be defective with respect to discourse reference. This is reflected in the questionable acceptability of weak definites as antecedents of anaphoric expressions:

- (13) Lola listened to the radio_i until she fell asleep. ?She turned it_i off when she woke up in the middle of the night.

Finally, weak definites are in complementary distribution with the type of bare singular nominals illustrated as follows (Stvan 1998, 2009):

- (14) a. The ship is at sea/port.
 b. He's in bed/jail/prison/church.
 c. I watched television this weekend.

These nominals (hereafter *bare singulars*) display most of the properties of weak definites. They display sloppy identity in VP-ellipsis sentences (15) and narrow scope interpretations in quantified sentences (16). Also, not every noun can occur bare (17), and not every predicate can govern a bare singular (18). Likewise, modification turns bare singulars ungrammatical (19a), although some modifiers creating subclasses of objects are allowed (19b). Bare singulars in subject position of episodic sentences are typically not acceptable (20). As subjects of generic sentences they are possible (21), although restricted.

Bare singulars do not serve as good antecedents for anaphoric expressions (22). Finally, sentences with bare singulars display meaning enrichments (23).

- (15) Alice is in jail and Lola too.
(Alice and Lola could be in different jails)
- (16) Every boxer is in jail.
(Each boxer could be in a different jail)
- (17) *Alice is in cage.
- (18) *Alice is behind prison.
- (19) a. *Alice is in old prison.
b. Alice is in military prison.
- (20) *Jail was full last year.
- (21) Jail is not a nice place to be for a young woman.
- (22) ?? Alice is in jail_i but she thinks that it_i will be demolished soon.
- (23) Alice is in jail. = Alice is in a jail + she is imprisoned.

There are at least three good reasons why weak definites deserve to be studied. First, they challenge the well-established assumption that definites refer uniquely. Second, their special properties constitute an intriguing puzzle from a semantic point of view, in the way compositional, lexical, and pragmatic factors come together. Finally, as the properties of weak definites are also displayed by bare singulars, the study of weak definites also benefits the understanding of these other constructions.

The present paper presents an analysis of weak definites that aims to account for the peculiarities listed above. This is an elaborated version of the account presented in Aguilar-Guevara and Zwarts (2011), which is the backbone of Aguilar-Guevara (2013).¹ The proposal in a nutshell is that weak definites refer to kinds instantiated by objects when they combine with object-level predicates. The combination is made possible by a lexical rule that lifts object-level predicates to kind-level predicates, ensures that the kinds are instantiated via Carlson's (1977) realization relation, and incorporates into the denotation of the lifted versions a relation that corresponds to the stereotypical usages of the kinds.

This paper is organized as follows. Section 2 spells out the semantics we adopt for the definite article present in weak definites. Section 3 discusses how weak definites make reference to kinds. Section 4 discusses how the kinds denoted by weak definites are instantiated, which allows for the formulation of logical forms of sentences with weak definites in Section 5. Then, Section 6

1. As from Carlson and Sussman's (2005) work, weak definites have received significant attention. We refer the reader to works like Carlson *et al.* (2006); Bosch (2010); Bosch and Cieschinger (2010); Aguilar-Guevara and Schulpen (2011); Klein (2011); Schulpen (2011); Zribi-Hertz and Jean-Louis (2012); Aguilar-Guevara and Schulpen (to appear); Asic and Corblin (to appear); Schwarz (to appear); Zwarts (to appear).

discusses stereotypical usages of kinds and how they are captured in the logical form of weak definite sentences. Section 7 discusses how the combination of weak definites with object-level predicates takes place. Section 8 summarizes the main claims and discusses the virtues of this analysis as well as its disadvantages and some other open questions.

2. The meaning of the definite article

There exist two main lines of thought accounting for the meaning of definites. One line, initiated by Frege (1892); Russell (1905) and Strawson (1950), and followed by contemporary authors like Hawkins (1991); Abbott (1999) and partially by Farkas (2002) and Schwarz (2009) can be summarized in the following condition:

(24) *Uniqueness condition*

A definite is felicitous if there is one and only one entity in the context that satisfies its descriptive content.

The other line of thought, proposed by Heim (1982); Kamp (1981), and partially followed by authors like Roberts (2003) and Schwarz (2009) can be summarized in the following condition:

(25) *Familiarity condition*

A definite is felicitous only if the existence of its referent is presumably known by the hearer.

Most of the contemporary approaches to definites opt for either uniqueness or familiarity (see references above). However, more recently, some authors have pursued a combination of both approaches (*e.g.* Farkas 2002; Roberts 2003) and some others have adopted both to account for different uses of definites (*e.g.* Schwarz 2009).

Contributing to an evaluation of these approaches is not one of the aims of this paper. Instead, we simply assume that the definite article present in weak definites is the same one occurring in at least a great range of regular definites, and that it encodes uniqueness.²

2. Notice that Russell's analysis only concerns definite phrases containing singular countable nouns. Hawkins (1978) subsumed the notion of uniqueness under *maximality* (also called *inclusiveness* or *exhaustiveness*) to account for definite phrases with mass and plural nouns as well. The idea of inclusiveness is that the denotation of a definite consists of everything meeting the conditions of the descriptive content of the NP, *viz.*, the maximal set of objects or the totality of mass which satisfies the definite description. According to this, a phrase like *the cardinal points* denotes the totality of individuals with the property of being cardinal points. It is important to remark that, although in principle maximality covers both singulars and plural cases, for expository reasons related to the analysis we are about to

In addition to the usual motivations that are provided in favor of the uniqueness approach, we have another one related to the way weak definites are expressed in some dialects of German. In these dialects, when a preposition precedes a definite article (e.g. *zu dem Haus* ‘to the house’), the definite article can contract for several reasons (e.g. *zum Haus* ‘to the house’) (Cieschinger 2006; Puig-Waldmüller 2008; Schwarz 2009). One of these reasons is the expression of weak definiteness. Schwarz has noticed that if the definite article is not contracted in these contexts, then the weak reading of the definite is not available:

- (26) Maria ging zum/zu #dem Supermarkt. (Schwarz 2009)
 Maria went to-the/to the supermarket
 ‘Maria went to the supermarket’

Interestingly, something similar happens with generic uses of definites. The following sentence, which makes a statement not about a particular zebra, but about the kind zebra, is only acceptable if the definite article is contracted:

- (27) Am/#an dem Zebra kann man sehen, dass die Natur symmetrisch ist.
 (Schwarz 2009)
 on-the/on the zebra can one see that the nature symmetrical is
 ‘The zebra shows us that nature is symmetrical.’

Schwarz attributes a presuppositional uniqueness-based meaning to the contracted form. His analysis only deals explicitly with definites referring to unique ordinary individuals and he leaves for future work the analysis of generic and weak definites. As far as we are concerned, the only two assumptions that are needed to extend Schwarz’s analysis to cover these cases straightforwardly, are, on the one hand, that both weak and generic definites refer to unique kinds and, of course, that the denotation of the definite article he proposes can range over kinds.

Before we move on to analyze generic and weak definites, let us provide in (28) the denotation we adopt for the singular definite article. This denotation corresponds to a function from properties to truth values which presupposes that the entity x is the unique individual of which the property P holds. Following Partee (1986), uniqueness is indicated by means of the iota-operator:

- (28) $\llbracket the \rrbracket = \lambda P \iota x. P(x)$

Now, if we combine, *via* Function Application, the denotation of *the* with that of a common noun like *balloon*, which in this context denotes a property of

explain, and because in any case we will be dealing with singular cases most of the time, we continue accounting for the definite article in terms of uniqueness.

individuals, we obtain an expression of type e corresponding to the unique individual that has the balloon property:

- (29) a. $\llbracket the \rrbracket = \lambda P \iota x.P(x)$
 b. $\llbracket balloon \rrbracket = \lambda x.Balloon(x)$
 c. $\llbracket the balloon \rrbracket = \llbracket \lambda P \iota x.P(x) \rrbracket (\llbracket \lambda x.Balloon(x) \rrbracket)$ by FA
 $= \iota x.Balloon(x)$

In regular definites like *the balloon*, nouns denote sets of ‘ordinary’ individuals. However, as we will see in the next section, nouns can also denote sets of kinds.

3. Reference to kinds

Kinds can be defined as abstract objects which are representative of a group of individuals with similar characteristics. Since Carlson (1977), it is standardly assumed that NPs can refer to kinds (and subkinds) besides ordinary individuals. Since then, several authors have studied how this reference is accomplished by different types of NPs in a diverse range of contexts (see Carlson 1977; Chierchia 1998; Ojeda 1991; Krifka *et al.* 1995; Geurts 2001; Cohen 2002, 2005; Dayal 2004; Krifka 2004; Katz and Zamparelli 2005; Farkas and de Swart 2007; Dobrovie-Sorin and Pires de Oliveira 2008; Mueller-Reichau 2012; Borik and Espinal 2012, among many others). The following sentences illustrate this diversity with different types of verbal predicates and, crucially, with different types of kind-referring NPs (in bold letters), namely, bare plurals, indefinites, and definites:

- (30) a. **Women** are good managers.
 b. Thomas Stewart had invented **a clamping mop** that could wring the water out of itself by the use of a lever.
 c. **The whale** eats lots of fish and krill in order to fatten up for its long trip to its mating grounds.

In what follows we focus on the generic definites that (30c) illustrates, and (31) more extensively:

- (31) a. **The Dutchman** is a good sailor.
 b. Shockley invented **the transistor**.
 c. **The potato genome** contains 12 chromosomes and 860 million base pairs making it a medium-sized plant genome.
 d. Context: In the zoo.
 Sentence: Look children! This is the **reticulated giraffe**.

Understanding the meaning of generic definites is essential for our purposes because, as we saw before, there is a parallelism between generic and weak definites. This parallelism largely motivates our theory of weak definites.

3.1. Generic definites and reference to kinds

Generic definites have received much less attention than other kind-referring expressions, in particular bare plurals. However, works like Ojeda (1991); Chierchia (1998); Dayal (2003, 2004, 2011, 2013); Krifka (2004); Beyssade (2005); Farkas and de Swart (2007); Borik and Espinal (2012) are examples of insightful attempts to understand the distribution and meaning of these constructions as well as to differentiate well enough the nature of the kinds they refer to from the kinds bare plurals refer to.

Following Dayal (2004); Krifka (2004); Farkas and de Swart (2007); Borik and Espinal (2012), we assume that the meaning of generic definites results from the combination of the uniqueness-encoding definite article plus nouns denoting properties of kinds, which are conceived as atomic individuals.³ According to this analysis, the denotation of a generic definite like *the whale* (in (30c)) corresponds to the unique kind of which the whale property holds (the unique member of the singleton $\{\mathbf{W}\}$). This denotation is abbreviated with a capital letter in boldface:

$$(32) \quad \llbracket \textit{the whale} \rrbracket = \iota_k . \textit{Whale}(x_k) \\ = \mathbf{W}$$

As simple and intuitive as this denotation may be, there are a few things to say about it. The first thing is that this denotation obviously implies that the iota-operator that the definite article represents can bind kind variables in addition to individual variables. This is an intuitive assumption as there is no reason why the iota operator, like the existential and universal quantifier, cannot bind different sorts of variables.

The second thing to say is that the adopted denotation implies that NPs can operate at the level of either kinds or ordinary individuals. This has been independently assumed to account for other phenomena apart from generic definites, such as incorporation and pseudo-incorporation in a number of languages (see, for example, Dayal 2003, 2011; Espinal and McNally 2011; McNally and Boleda 2004; Dobrovie-Sorin and Pires de Oliveira 2008). In the literature there exist at least three ways in which the ability of nouns to operate at the level of both kinds and individuals has been proposed to happen. One is by assuming that nouns can systematically denote both properties of ordinary individuals and properties of kinds. This is in line with Dayal (2004) and Farkas and de Swart (2007). Another possibility, proposed by Borik and Espinal (2012), is that nouns always denote properties of kinds and that the number projection (NumP) adds the individual level. The idea is that, when this pro-

3. We are aware that this analysis is not uncontroversial (see Farkas and de Swart 2007, for discussion). We refer the reader to other approaches to generic definites such as Chierchia (1998), who derives the kind reference of generic definites in terms of group individuals.

jection is not present, as they claim to happen with generic definites, the kind level is the only one available. The third possibility, assumed by McNally and Boleda (2004), is that the denotation of nouns includes at the same time both an individual and a kind argument.⁴ To evaluate in detail the advantages of these three possibilities is beyond this paper. Instead, only for the sake of simplicity, we adopt the first one, namely, that nouns are ambiguous between kind-level and object-level denotations.⁵

The last thing to say about the adopted denotation for generic definites has to do with the conditions under which these definites are acceptable. It is well known that at least in English generic definites are not fully productive. Consider the classical examples in (33), which Carlson (1977) attributes to Barbara Partee.

- (33) a. The Coke bottle has a long neck.
 b. #The green bottle has a long neck.

Based on these examples, Carlson proposes that generic definites are restricted to designating well-established concepts. Accordingly, Coke bottles constitute a well-defined concept whereas green bottles do not, and that explains the contrast above. Dayal (2004) claims that this explanation is not accurate given that contextual manipulation in principle can enable any definite to have an acceptable generic interpretation. As an example, she describes the context of a factory that produces two kinds of bottles, a green one for medicinal purposes and a white one for cosmetics. In that context the definite in (33b) would felicitously refer to a kind.

We believe that at a general level Carlson's and Dayal's ideas about the licensing of generic definites are complementary rather than opposite. We believe that what licenses the generic reading of a definite is the presence of appropriate circumstances leading to the identification of a unique kind, maybe similar to what happens with regular definites referring to unique ordinary individuals. In this view, well-establishedness is one of these circumstances enabling unique reference because what it does is to differentiate the kinds well enough, just as happens with some "universally" unique individuals (*e.g.* the moon). In the example of *the Coke bottle*, general world knowledge enables us to interpret the definite as referring to the uniquely identifiable Coke bottle

4. In this denotation the kind argument is related to the individual argument *via* Carlson's (1977) realization relation, as we will discuss later on.

5. Admittedly, assuming that properties, in this case denoted by nouns in generic definites, can hold of ordinary individuals or of kinds may represent a conceptual problem. Whereas it is evident that individuals can have, for instance, the property of being a whale, the question is in what sense kinds can also do so. Is the kind **W** of the whales also something to which the property of being a whale can apply? We leave this important issue for future research.

kind. In contrast, in the example of the green bottle, an appropriate context sets up the unique identifiability of the kind of green bottles so that a definite can pick it up.⁶

There are other ways to achieve unique reference. One way is by modifying the definites with adjectives operating at the level of kinds, as in *the Persian cat* in (34a) (see McNally and Boleda 2004; Arsenijevic *et al.* 2010). However, the question then is what exactly the modifier is doing there. One option would be that the adjective narrows down the domain of evaluation of the definite to the extent that it creates the effect of uniqueness. Intriguingly, as *the French cat* in (34b) shows, not every modifier works equally well to license generic definites. This suggests that kind-level modifiers create well-established kinds sometimes but not always. That would be the case for *the Persian cat* but not for *the French cat*:

- (34) a. The Persian cat is one of the most popular breeds of cats around.
 b. ?The French cat is one of the most popular breeds of cats around.

Another way to arrive at reference of a uniquely identifiable kind is by referring to natural kinds or artifacts, about which we do not typically talk as ordinary individuals, like *the piranha* (35) or *the transistor* (36):

- (35) The piranha is a type of freshwater fish found in the rivers of the South American jungles.
 (36) The transistor was invented by John Bardeen.

Compare these examples with other names of other more familiar species and artifacts such as *the cat* or *the bed*, whose generic interpretations are less acceptable:

- (37) a. ?The cat is a type of pet very popular among singles.

6. Our explanation of the bottle examples partly differs from Dayal's explanation. The reason is that, in fact, we disagree with part of her proposal. According to her, generic definites refer to kinds that are atomic but also part of a taxonomy. Following this view, definites can only be successfully interpreted generically when the context invokes the appropriate level of the taxonomy such that no subkinds of the relevant type are included. Only in this way can the kind referred to be unique in the context. For example, *the lion* can refer to the unique kind *L* only when subkinds of the species *Panthera leo* are not part of the domain of evaluation of the definite. We see a problem with this proposal. Although it seems intuitively right to account for natural species, which by definition are associated with taxonomies, the idea that these structures are necessary for generic readings to be licensed seems ad hoc and unnecessary for the bottle examples in the factory contexts. According to Dayal, what the factory context would be doing is to set up a taxonomy constituted by two types of bottles, the green one and the blue one. In that taxonomy the green bottle is a unique kind. We do not see why such a taxonomy would be necessary if what the context is doing in any case is to make the green bottle kind uniquely identifiable.

- b. ?The bed was invented by Egyptians.

As can be seen, there is still much to investigate about generic definites and their conditions of acceptability. In particular, the notion of well-establishedness needs further investigation given its relevance not only to the interpretation of generic definites but also to that of weak definites. For further discussion see, for example, Zwarts (to appear), who discusses how the identifiability of kinds can be analyzed in terms of frames that can be culturally and contextually conditioned.

3.2. Weak definites and reference to kinds

Having discussed generic definites, we can now proceed to determine the meaning of weak definites. Our proposal is that weak definites, just like generic definites, refer to kinds. Thus, for example, the definites *the newspaper* and *the violin* in sentences (38a) and (38b) refer, respectively, to the unique kind N and the unique kind V, as the denotations in (39) show:

- (38) a. Lola is reading the newspaper.
 b. Marika played the violin.
- (39) a. $\llbracket \textit{the newspaper} \rrbracket = \iota x_k . \textit{Newspaper}(x_k)$
 $= \mathbf{N}$
 b. $\llbracket \textit{the violin} \rrbracket = \iota x_k . \textit{Violin}(x_k)$
 $= \mathbf{V}$

Analyzing weak definites as kind-referring expressions accounts for three of the special properties of weak definites. First of all, it accounts for the main anomaly of weak definites compared with regular definites, namely, the presence of a definite article despite the lack of uniqueness at the level of ordinary entities. With a weak definite, what licenses the definite article is the uniqueness of the kind referred to.

The present proposal can also account for the restrictions on modification exemplified in (6). If weak definites denote kinds, then the nouns heading them must also range over kinds rather than over ordinary individuals. Adjectives like *old* are predicates of individuals, which means that they are incompatible with kind-referring nouns. Thus, a definite like *the old hospital* can only refer to an ordinary individual. This reasoning leads to a prediction, namely, that weak definites only combine with adjectives operating at the level of kinds. In this case, the adjective combines with a noun ranging over kinds, generating an NP that also denotes the singleton set of kinds from which the definite article can pick its unique member. Following McNally and Boleda (2004), an example of this type of adjective would be *psychiatric*. The idea is that in a definite like *the psychiatric hospital*, the noun *hospital* refers to a set of hospital kinds, which the adjective takes and maps to the singleton

set of psychiatric hospital kinds. The prediction that weak definites are only able to combine with kind-level adjectives is confirmed by the results of some experiments reported in Aguilar-Guevara and Schulpen (to appear). These experiments show that weak definites modified by kind-level adjectives in VP-ellipsis sentences allow sloppy readings significantly more than regular definites and weak definites modified by object-level adjectives.

Interestingly, the proposal that weak definites, just like generic definites, refer to unique kinds explains the resemblance between the two types of phrases. However, it also leads us to the observation of one initial problem with the proposal. Compare the weak definite sentences in (38) with the following generic sentences:

- (40) a. The newspaper is a rich source of information.
 b. The violin in its present form emerged in the early 16th century in Northern Italy.

The generic sentences in (40) contain the (arguably) kind-level predicates *source of information* and *emerge* which as such can straightforwardly apply to the kinds referred to by the generic definites. In contrast, the weak definite sentences in (38) contain the object-level predicates (*i.e.* individual-level or stage-level predicates) *read* and *play*, which as such cannot apply to kinds.

This problem brings us to the next step of our analysis, namely, to determine how the kinds denoted by weak definites can be realized in order to combine with object-level predicates.

4. Kinds realized

Every semantic analysis that makes use of the notion of kinds also needs to consider how these kinds are instantiated by particular individuals. In the case of weak definites this is necessary because a sentence like *Lola took the train* in the end predicates about an event in which Lola directly interacts with (at least) one individual of the train kind rather than with the kind itself, which is an abstract entity. Following Carlson (1977), we assume that this instantiation of kinds occurs via the realization relation *R*, which relates individuals and the kinds they are realizations of:

- (41) *Realization Relation*
 $R(a, \mathbf{A})$ if the object *a* instantiates the kind **A**.

Thus, if **T** is the train kind, then $R(a, \mathbf{T})$ means that the individual *a* is a realization of that kind, *i.e.* a train. Crucially, this kind can be instantiated not just by an entity but also by a sum of entities. So, in the case of the kind **T**, not only is every individual train a realization of **T**, but also every plural sum of trains. This makes it possible for sentence (42) to refer to a situation in which Lola ac-

tually took two trains to go to Nijmegen from Amsterdam. Even though there is a plurality of trains at the lower level of realizations, there is still uniqueness at the higher level of kinds:

(42) Lola took the train from Amsterdam to Nijmegen.

Having the realization relation at our disposal, it is possible to be more specific about the interpretation of generic definites in sentences in which the definites combine with an object-level predicates:

- (43) a. The violin has no frets to stop the strings.
b. The newspaper comes in a plastic bag when it rains.

Following Krifka *et al.* (1995), we can say that sentence (43a) conveys a generalization about individuals that are realizations of the violin kind, namely, that these individuals have no frets to stop their strings. Likewise, sentence (43b) conveys a generalization about both individuals that are realizations of the newspaper kind, and the situations in which these realizations come and it rains. The generalization in this case is that these realizations come in a plastic bag.

To represent the meaning of both (43a) and (43b), we make use of the *generic operator* GEN, conceived as a sort of invisible adverbial quantifier close in meaning to *usually*. Again, following Krifka *et al.*, we adopt the simplified representation of GEN in (44). According to this, GEN can range over both individuals (represented by $x_1 \dots x_i$) and situations (represented by $s_1 \dots s_i$) and, like other adverbial quantifiers, has a restrictor and a matrix term:

(44) GEN [$x_1 \dots x_i, s_1 \dots s_i$] (Restrictor; Matrix)

In the partial semantic representation of (43a) given in (45), GEN takes realizations of the violin kind as its restrictor and the individuals that have no frets to stop their strings as its matrix. Likewise, in the representation of (43b) given in (46), realizations of the newspaper kind as well as situations in which they come and it rains are part of the restrictor, and individuals that come in a plastic bag are part of the matrix:

- (45) a. The violin has no frets to stop the strings.
b. GEN [x_i] ($R(x_i, \mathbf{V})$; x_i has no frets to stop the strings)
- (46) a. The newspaper comes in a plastic bag when it rains.
b. GEN [x_i, s] ($R(x_i, \mathbf{N}) \wedge$ it rains in $s \wedge x_i$ comes in s ; x_i comes in a plastic bag in s)

5. The logical form for weak definite sentences

Let us now combine the insights from Sections 3 and 4 to develop a semantic representation of sentences with weak definites. This proposal is partly inspired by the account that Dayal (2003); Dayal (2011) and Espinal and McNally (2011) provide for sentences with bare singulars in Hindi and in Spanish and Catalan, respectively. Both Dayal and Espinal and McNally treat bare singulars as cases of *pseudo-incorporation*, which is the phenomenon in which singular bare nouns occurring in internal argument position share semantic properties with syntactically incorporated nouns (*e.g.* obligatory narrow scope, inability to introduce discourse referents, number neutrality and meaning enrichment) but, at the same time, behave syntactically more freely than these other nouns (*e.g.* they do not necessarily occur in strict adjacency to the verb, they can be marked for case, the verb can show agreement with the noun, and certain types of modification may be allowed). Incorporation and pseudo-incorporation have been studied by several authors in different languages (*e.g.* Baker 1988; van Geenhoven 1998; Carlson 2006; Chung and Ladusaw 2004; Dayal 2003, 2011; Farkas and de Swart 2003; Espinal and McNally 2011; Massam 2001; Mithun 1984; Sadock 1980; Stvan 2009; Vázquez-Rojas Maldonado 2009). The analyses of Dayal and Espinal and McNally are both based on the idea that bare singulars denote properties instead of entities. As such, they function as verb modifiers. The verbs, on the other hand, have their internal argument suppressed by means of a mechanism which is different for each approach. The special semantics of bare singulars together with the conditions under which the suppression of the internal argument takes place explain the special properties of bare singulars.

Given that weak definites share a number of properties with incorporated bare singulars, it seems reasonable to treat weak definites as cases of pseudo-incorporation. This has been suggested by Carlson (2006) and worked out in detail by Schwarz (to appear). However, the account of weak definite sentences we present here does not involve this process. One important reason why we do not pursue a pseudo-incorporation analysis is that this would not straightforwardly allow us to attribute a meaningful role to the presence of the definite article in weak definites. Another reason is that this analysis does not permit us to capture the parallelism between generic definites and weak definites. See Aguilar-Guevara (2014) for a more extended argument against a pseudo-incorporation analysis.

Returning to the logical form of weak definite sentences, consider again the example of Lola reading the newspaper, repeated in (47). Thinking in Neo-Davidsonian terms, we can say that this sentence expresses that Lola was involved in a reading event with at least one instantiation of the newspaper kind. This could be represented in either of the two ways shown in (47a) and (47b).

Notice that following Parsons (1990), we assume that verbs are predicates over events and thematic roles are functions from events to participants (atoms or sums). For the sake of simplicity, we are omitting tense and aspect information.

- (47) Lola read the newspaper.
 a. $\exists e[\text{Read}(e) \wedge \text{Ag}(e) = \text{lola} \wedge R(\text{Th}(e), \mathbf{N})]$
 b. $\exists e \exists x_i [\text{Read}(e) \wedge \text{Ag}(e) = \text{lola} \wedge \text{Th}(e) = x_i \wedge R(x_i, \mathbf{N})]$

Both (47a) and (47b) correspond to sets of reading events of which Lola is the agent, and instantiations of the newspaper kind are the theme.⁷ The difference between them is that (47a), in contrast with (47b), avoids existential quantification over realizations of the newspaper kind by using the functional expression $\text{Th}(e)$ directly as the first argument of the realization relation. It is commonly assumed that the presence of existential quantifiers over individuals typically provides for the establishment of referents into the discourse (Heim 1982; Kamp 1981; Groenendijk and Stokhof 1990, 1991). Espinal and McNally (2011) make direct use of $\text{Th}(e)$ as the first argument of the realization relation in order to avoid this kind of quantification and then be consistent with the deficient referential status of bare singular nouns in Spanish. The same strategy is adopted in (47a) predicting then that weak definites do not set up discourse referents at the individual level. In contrast, (47b) predicts that weak definites are referential in this sense. Thus, even though truth-conditionally equivalent, the representations in (47a) and (47b) have different discourse properties assuming that existential quantifiers normally introduce discourse referents. As the example in (13) shows, the prediction that weak definites are discourse-referentially defective is borne out. Accordingly, we opt for the type of logical form in (1a).

Two more aspects of weak definites can be accounted for due to another characteristic of the adopted logical form. These aspects are sloppy readings in VP ellipsis constructions, and narrow scope interpretations in sentences with quantified expressions. The relevant characteristic of the logical form is that the individual realizations of the kinds are tied to the event variable in a local way. As the sentence and the logical form in (48) show, sloppy identity in VP ellipsis occurs because the Th function is local to each of the two propositions expressed in this sentence and because each one has its own existential event quantifier:

- (48) a. Lola read the newspaper and Alice did too.
 b. $\exists e[\text{Read}(e) \wedge R(\text{Th}(e), \mathbf{H}) \wedge \text{Ag}(e) = \text{lola}] \wedge \exists e'[\text{Read}(e') \wedge R(\text{Th}(e'), \mathbf{H}) \wedge \text{Ag}(e') = \text{alice}]$

7. The sets of events that both logical forms represent can be more easily seen if the existential quantifier over events is replaced by a lambda operator:

- (1) a. $\lambda e[\text{Read}(e) \wedge \text{Ag}(e) = \text{lola} \wedge R(\text{Th}(e), \mathbf{N})]$
 b. $\lambda e \exists x_i [\text{Read}(e) \wedge \text{Ag}(e) = \text{lola} \wedge \text{Th}(e) = x_i \wedge R(x_i, \mathbf{N})]$

Similarly, the narrow scope effect is due to the event quantifier always having narrow scope with respect to the scope bearing operator and the thematic role being dependent upon the event variable:

- (49) a. Every librarian read the newspaper.
 b. $\forall y[\text{Librarian}(y) \rightarrow \exists e[\text{Read}(e) \wedge R(\text{Th}(e), \mathbf{N}) \wedge \text{Ag}(e) = y]]$

Despite the advantages of the logical forms we are attributing to sentences with weak definites, these formulas still do not suffice to account for the complete interpretation of the sentences. In particular, these logical forms still do not capture meaning enrichments. This leads us to the next step of our analysis.

6. Stereotypical usages

Sentence (50) not only expresses that there was an event in which Alice goes to a location that qualifies as a hospital. It also expresses that in this event the typical purpose of hospitals, namely, to provide medical services, was fulfilled. Likewise, the sentence in (51) not only expresses that there was an event in which Alice examines an object that is classified as a calendar. Furthermore, it conveys that she did so to benefit from the stereotypical purpose of a calendar, namely, to provide information regarding the availability of a person or an institution in the days, weeks, and months of a particular year:

- (50) Alice went to the hospital = Alice went to a hospital + to get medical services.
 (51) Lola checked the calendar = Lola checked a calendar + to check availability.

In general we can say that sentences with weak definites not only predicate about an event in which an agent interacts with instantiations of a kind. Crucially, these events involve the most typical purpose associated with the kind. In other words, the event predicated about is part of the most typical circumstances under which objects of a particular kind are used. We call these circumstances *stereotypical usages* (SUs). Aguilar-Guevara (2014) characterizes SUs in detail and motivates their participation in the interpretation of weak definites based on the lexical semantics of the nouns heading them. What is relevant for now is that, in order to capture SUs formally, we need to assume an additional restriction on the events quantified over. We do so by means of the Stereotypical Usage Relation U , which is defined as follows.

- (52) *Stereotypical Usage Relation*
 $U(e, \mathbf{K})$ if the event e is a stereotypical usage of the kind \mathbf{K} .

Through the relation U , a kind \mathbf{K} is associated with the set of events in which its instantiations function in ways that are stereotypical for \mathbf{K} . Notice two relevant properties of this predicate. First, the U predicate relates stereoty-

pical events with kinds rather than with ordinary individuals. This follows the assumption that stereotypes are constructed about *types* of objects rather than about the objects themselves (Aguilar-Guevara 2014). Second, incorporating the *U* predicate into the logical form of weak definite sentences has as a consequence that the specification this predicate makes (*i.e.* that the events quantified over correspond to SUs of a kind) is part of the truth-conditional meaning of the sentences rather than a conversational implicature or a presupposition. Aguilar-Guevara and Schulpen (2011) and Aguilar-Guevara (2013) provide empirical evidence in favor of this treatment. They show that, unlike other non-asserted meanings, the enriched meanings weak definite sentences display are, among other things, non-defeasible and at-issue meanings.

Once we have the *U* predicate at our disposal, then it is possible to provide complete analyses of weak definite sentences. Thus, for example, the sentence about Lola checking the calendar (repeated in (53a) and translated in (53b)) denotes a non-empty set of events of checking in which the agent is Lola and the theme is a realization of the calendar kind, such that this set of events is part of the set of events in which calendars are used in ways that are stereotypical for their kind. Similarly, the sentence about Alice going to the hospital (repeated in (54a) and translated in (54b)) denotes a non-empty set of events of goal-directed motion in which the agent is Alice and the location is a realization of the hospital kind, such that in those events the hospital kind is fulfilling its stereotypical function. In relation to sentence (54), we must acknowledge that for convenience we have made two simplifications in the analysis. First, the combination *go to* is analyzed as one event predicate. Second, stereotypicality usages are directly connected to this event, although strictly speaking they are connected to the event of being at the hospital.

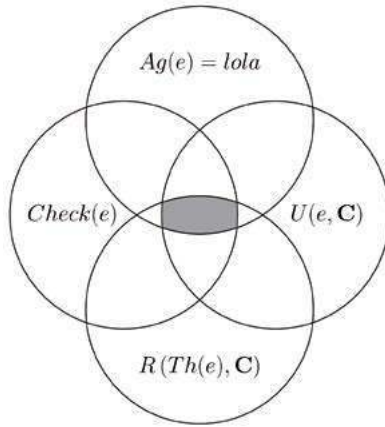
- (53) a. Lola checked the calendar.
 b. $\exists e[\text{Checked}(e) \wedge \text{Ag}(e) = \text{lola} \wedge R(\text{Th}(e), \mathbf{C}) \wedge U(e, \mathbf{C})]$
- (54) a. Alice went to the hospital.
 b. $\exists e[\text{Go-to}(e) \wedge \text{Ag}(e) = \text{alice} \wedge R(\text{Loc}(e), \mathbf{H}) \wedge U(e, \mathbf{H})]$

The inclusion of *U* into the logical form of weak definite sentences is advantageous not only because it captures the meaning enrichment that the sentences display. In addition, it leads us to a straightforward explanation of the lexical restrictions weak definites are subject to. Recall that, as the examples in (55) compared to (53a) show, not every noun can occur in a weak definite and that not every verb can govern a weak definite:

- (55) a. Lola read #the calendar.
 b. Lola checked #the book.
 c. Lola read #the book.

To facilitate our explanation, we represent graphically the logical form of the sentence about Lola checking the calendar. Figure 1 shows that this logical form corresponds to a non-empty intersection of the set of events of checking, the set of events in which Lola is the agent, the set of events in which the theme is the realization of the calendar kind, and the set of SUs associated with that kind. This is in the spirit of Neo-Davidsonian event semantics, that analyzes sentences as a conjunction of conditions on the event variable.

Figure 1: Lola checked the calendar.

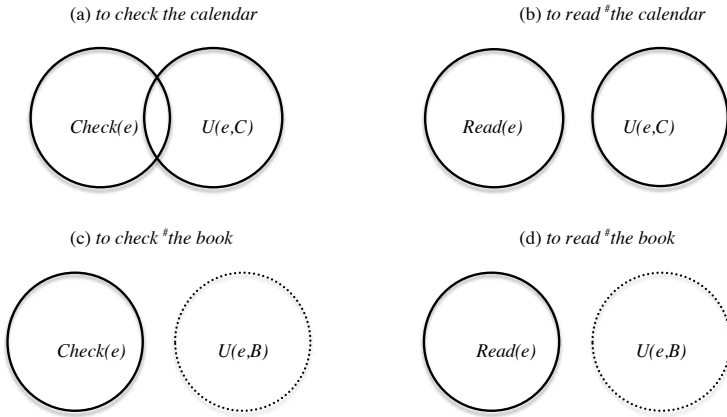


Let us then focus on the intersection between the set of events $\lambda e.V(e)$ that corresponds to the verb *to check*, *i.e.* $\lambda e.Check(e)$, and the set of events $\lambda e.U(e, \mathbf{K})$ associated with the SUs of the calendar kind, *i.e.* $\lambda e.U(e, \mathbf{C})$. Our proposal is that it is precisely the existence of the intersection between $\lambda e.V(e)$ and $\lambda e.U(e, \mathbf{K})$ which ultimately triggers the weak reading of a kind-referring definite. Compare the interaction between these two sets in *to check the calendar* (in Figure 2a) with the interaction between these two sets in *to read[#] the calendar* (in Figure 2b).⁸ In this case, the verb *to check* is replaced by *to read*, which does not allow its definite object to be interpreted weakly. Consistent with our proposal, the idea is that here $\lambda e.U(e, \mathbf{K})$ and $\lambda e.V(e)$ do not intersect, as reading is not part of the SUs of calendars. Analogously, we could say that the VP *to check[#] the book*, which substitutes the noun *calendar* by *book*, does not trigger any weak reading because the set of events of checking does not intersect the set of SUs attributed to the book kind. However, there is a potential problem with this argument, namely, that the VP *to read the book* does not trigger any weak reading either despite

8. In the figures, the lambda operator is omitted for convenience.

the fact that books are made for reading. As reading is probably part of the typical actions associated with books, it doesn't seem to be intuitive to attribute the absence of weak readings to an empty intersection of $\lambda e.U(e, \mathbf{K})$ and $\lambda e.V(e)$. That is why in this case, we need to assume that the book kind is simply not associated with any SU at all (see Figures 2c and 2d). This assumption, related to the fact that concepts like *book* are too general to be identified with stereotypes, is defended in Aguilar-Guevara (2014). Also, see Zwarts (2013) for a discussion of the lexical restrictions of nouns in weak definites in the context of frames.

Figure 2: Interaction between the sets U and V in different sentences.



7. Combining verbs with weak definites

Let us now return to the compositional structure of sentences with weak definites. We start by deriving the meaning of VPs containing weak definites. We adopt Kratzer's (1996) assumptions that external arguments are introduced independently and not as part of the lexical semantics of verbs, and that the existential quantifier over events is introduced by the tense-aspect system. In other words, the subject can be treated as simply adding a thematic condition on the event. We make this assumption primarily because it makes the analysis of the verb a bit easier. Thus, the meaning of weak definite VPs can be illustrated as follows:

- (56) a. $\llbracket \text{read the newspaper} \rrbracket = \lambda e[\text{Read}(e) \wedge R(\text{Th}(e), \mathbf{N}) \wedge U(e, \mathbf{N})]$
 b. $\llbracket \text{go to the hospital} \rrbracket = \lambda e[\text{Go-to}(e) \wedge R(\text{Loc}(e), \mathbf{H}) \wedge U(e, \mathbf{H})]$

Abstracting over the kind argument of VPs, we obtain the following verb meanings:

- (57) a. $\llbracket \text{read} \rrbracket = \lambda x_k \lambda e [\text{Read}(e) \wedge R(\text{Th}(e), x_k) \wedge U(e, x_k)]$
 b. $\llbracket \text{go-to} \rrbracket = \lambda x_k \lambda e [\text{Go-to}(e) \wedge R(\text{Loc}(e), x_k) \wedge U(e, x_k)]$

What we have in (57a) and (57b) are enriched kind-level denotations of the verbs *to read* and *to go to*. We propose that these meanings are derived from the ordinary object-level meaning of verbs by means of a lexical rule, which is defined as follows:

- (58) *Kind Lifting Rule*

If V is a transitive verb (or verb-preposition combination) with an internal argument Arg and V has the meaning $\lambda x_i \lambda e [V(e) \wedge Arg(e) = x_i]$, then V also has the meaning $\lambda x_k \lambda e [V(e) \wedge R(Arg(e), x_k) \wedge U(e, x_k)]$.

This lexical rule can be seen as a general type-shift function (or rather, sort-shift function) à la Partee (1986). This implies that this rule is a productive mechanism of generation of predicates, that is to say, in principle it can apply to any verb and verb-preposition combination yielding a function that can take any atomic kind. However, this does not mean that the occurrence of weak definites is predicted to be productive. As we have seen in the previous section, two circumstances must co-occur in order for the lifted enriched predicates to trigger weak definite readings. The first one is that the predicate applies to a kind associated with SUs. The second circumstance is that the set of events corresponding to SUs and to the predicate intersect. Only if these two circumstances coincide do weak definite readings emerge. To capture the confluence of these circumstances, we propose the following condition of applicability of KLR.

- (59) *Condition of applicability of the KLR*

A verb or verb-preposition combination V with the meaning $\lambda x_i \lambda e [V(e) \wedge Arg(e) = x_i]$ can also get the meaning $\lambda x_k \lambda e [V(e) \wedge R(Arg(e), x_k) \wedge U(e, x_k)]$ and then combine with a DP referring to an atomic kind \mathbf{K} iff $\lambda e V(e) \cap \lambda e U(e, \mathbf{K}) \neq \emptyset$.

8. Conclusion

We have proposed that weak definites refer to kinds which combine with object-level predicates by means of the KLR. This lexical rule lifts object-level predicates to kind-level predicates, indicates that kinds the lifted predicates combine with are instantiated *via* the realization relation R , and incorporates the relation U into the denotation of the lifted predicates, which corresponds to stereotypical usages of kinds.

8.1. Virtues of the proposal

Let us now summarize how this proposal accounts for the properties of weak definites listed in Section 1. First of all, the assumption that a weak definite is an ordinary definite, but referring to kinds, explains both the presence of the definite article in these constructions and the lack of the uniqueness presupposition at the level of ordinary individuals. Given that uniqueness applies at the level of kinds and given that instantiations of kinds can be entities or sums, sentences with weak definites are felicitous in contexts where more than one entity satisfies their descriptive content (1). The kind-referring nature of weak definites also explains the resemblance between these and generic definites (9). Also, this kind-referring nature explains why modifiers operating at the level of individuals are incompatible with weak readings (6a), and predicts that only kind-level modifiers are able to maintain these readings (6b). The logical form attributed to sentences with weak definites, which does not involve existential quantification over individuals, is consistent with the incapability of weak definites to establish discourse referents (13). Sloppy identity in VP ellipsis is due to the thematic role being specific for each event in this kind of representation (2). Narrow scope is due to the same reason, because the event quantifier has narrow scope with respect to scope bearing operators (3). The fact that weak readings are due to the application of the KLR accounts for the fact that weak definites typically occur as objects and not as subjects (8) because this rule affects internal arguments which typically correspond to objects and not to subjects. The presence of the *U* predicate that the KLR incorporates into the lifted predicates, which relates SUs to kinds, captures the enriched meaning of the sentences with weak definites (12). The association with SUs also accounts for the lexical restrictions of these definites: only certain nouns that support stereotypical usage patterns trigger weak readings (4). Likewise, only verbs and verb-preposition combinations associated with these patterns support weak readings (5).

The virtues of the present analysis can be summarized in three points. First of all, this analysis takes a first serious step towards an analysis of ill-understood weak definites, opening up new ways of looking at the role of the functional aspect of the meaning of nouns, kind reference, and the use of the definite article. Second, it accounts for the exceptional properties of weak definites with mechanisms well motivated in the literature such as reference to kinds, the realization relation, type shifts and the iota-operator. Third, it treats definite generics and weak definites as different faces of the same phenomenon, which is empirically and methodologically satisfactory.

8.2. Open questions

Our theory is challenged by a number of issues. The first one is the existence of plural weak definites, which the following examples illustrate:

- (60) a. Alice went to the mountains.
 b. Joan watered the plants.
 c. I am doing the dishes.

Interestingly, some plural generic definites are also possible in English:

- (61) The mountains are the perfect place to get away from the hustle and bustle of the city.

Plura weak and generic definites are problematic for our analysis because plurality is in principle incompatible with the atomic nature of the kinds that both types of definites are supposed to refer to. One alternative to explain these cases would be to assume that the nouns in these definites are a sort of *pluralia tantum* nouns which do not compositionally relate to their singular counterparts. In other words, these nouns, instead of just referring to the sums of atomic individuals that their singular counterparts refer to, designate other individuals which certainly involve plurality but more as happens with collective nouns. Accordingly, the plural noun *mountains* does not refer to a sum of mountains but rather to a collection which, among other complications, not only includes mountains but also anything in the surface between the mountains (*i.e.* valleys and lakes).

One potential problem with this solution is that the plural nouns occurring in weak definites differ from classical examples of pluralia tantum such as *scissors*. First, the singular versions of these nouns, unlike those of plurals like *mountains*, are ill-formed (compare **scissor* with *mountain*). Second, in principle pluralia tantum nouns like *scissors* can be used to refer both to ordinary individuals (62a) and to kinds (62b). However, in the case of *mountains* we would need to assume that the pluralia tantum reading only emerges when the nouns operate at the level of kinds.

- (62) a. I love the new scissors I bought from your website.
 b. The scissors is one of the most ingenious and useful tools ever devised.

We leave for future research the resolution of these and other problems that treating plural nouns heading generic and weak definites as pluralia tantum nouns may bring along.

A second challenge for our theory is the fact that, although weak definites typically occur as objects of episodic sentences, a few definites in subject position seem to receive weak readings as well. Consider the following examples:

- (63) a. I used to hear **the newspaper** arrive in the wee hours of the morning.

- b. **The train** passes through here twice daily and four times on weekends.
- c. I had **the plumber** repair the tank.
- d. Despite the heavy rain, the window was open and **the radio** was playing loudly.

If we accept that the cases above are examples of weak definites, then they also represent a problem for our theory. Recall that, according to it, the emergence of weak readings depends on object-level predicates being transformed into kind-level predicates. These predicates are enriched with the *U* relation, which relates the internal argument of the predicate, a kind, with the set of events that are stereotypical for the kind. Weak definites in subject position in principle correspond to external arguments and as such they cannot depend on the KLR to generate the weak reading because external arguments are not part of the lexical meaning of the verb. To account for these potential cases, one alternative would be to treat weak definites in subject position as arguments of *unacusative* verbs, which, although internal, occupy the subject position for syntactic reasons (Perlmutter 1978; Burzio 1986; Levin and Hovav 1995). That option would straightforwardly work for verbs like *to arrive* whose argument looks more like a theme than like an agent. However, to treat verbs like *to repair*, whose argument is agentive, as cases of unaccusativity is challenging. We leave this issue for further research.

A third problem for our approach are weak definites in non-argumental prepositional phrases, like those illustrated in (64). These cases are a problem because the KLR, as stated in (58), applies to verbs and verb-preposition combinations only.

- (64)
- a. She juggles writing stories for children with writing articles about ladies who didn't realize they were pregnant until they gave birth **in the supermarket**.
 - b. There hasn't been pop excitement like it since Duran Duran and Spandau Ballet bumped into each other **in the hairdresser** back in 1984.
 - c. The other day a young high school couple broke up **at the library**.

To account for these cases, one solution would be to extend the applicability of the KLR to these prepositions. One problem with working out this extension is that, as the application of the KLR involves the incorporation of the *U* predicate, it would be necessary to assume that these prepositions, just like verbs, include an event argument in their lexical semantics. Such an assumption is not well-established and therefore it would be necessary to substantiate it in further research.

Apart from the challenges just mentioned, our theory brings along a number of questions that we would like to answer in future work. One of them has to do with the resemblance between weak definites and the bare singular nominals mentioned before. How can we account for the cross-linguistic com-

plementary distribution between both types of expressions? Are these expressions kind denoting expressions as well, as Le Bruyn et al. (2011) suggest? If so, how should we then account for the absence of the definite article?

Another question has to do with the possible scope of our analysis. In principle we have aimed to account for the weak definites described by Carlson and Sussman (2005) only. However, we wonder whether we could extend the analysis to other phenomena of weak definiteness such as possessive and relational weak definites (*e.g. the corner of a busy intersection*) (Guéron 1983; Vergnaud and Zubizarreta 1992; Ojeda 1993; Poesio 1994; Barker 2005; Le Bruyn to appear). How fruitful would it be to treat these definites as kind referring expressions? Would that treatment be a better alternative for what other theories have already proposed? If so, how should we cope with the fact that possessive weak definites do not share some of the properties of weak definites, like the semantic enrichment and the lexical restrictions?

Acknowledgments

This research is supported by the Netherlands Organization for Scientific Research (NWO, 360-70-340). We would like to thank Peter Bosch, Seth Cable, Greg Carlson, Maria Cieschinger, Chuck Clifton, Berit Gehrke, Bart Geurts, Jesse Harris, Lyn Fraizer, Louise McNally, Rick Nouwen, Barbara Partee, Jolien Scholten, Florian Schwarz, the members of the Weak Referentiality project: Martin Everaert, Ellen-Petra Kester, Bert Le Bruyn, Maartje Schulpen, and Henriëtte de Swart, the audiences of the conferences *Weak Referentiality and Definitude*, *SALT 20*, and the participants of the Semantics Group UiL OTS, the Linguistics Meeting of the University of Osnabrück, the Semantics and Pragmatics Colloquium of Radboud University Nijmegen, and the GLiF Seminar of Pompeu Fabra University for very helpful discussions. We also thank Tikitu de Jager for proofreading this manuscript. Of course, the usual disclaimers apply.

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RÉSUMÉ

Cet article présente une analyse des définis faibles (comme *répondre au téléphone*) introduits par Carlson et Sussman (2005). On y défend l'idée que les définis faibles font référence à des espèces, qui s'instancient dans des individus ordinaires quand ils se combinent avec des prédicats de type *object-level*. Cette composition est rendue possible par une règle lexicale qui change les prédicats de type *object-level* en prédicats de type *kind-level* et qui incorpore à leur dénotation un prédicat reflétant les usages stéréotypiques de ces espèces. Cette analyse permet de rendre compte de la plupart des propriétés caractéristiques des définis faibles.

MOTS-CLÉS

Définis faibles, référence, espèce, définis génériques.