APPARENT EXCEPTIONS TO THE DEFINITENESS EFFECT IN ENGLISH

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Abstract: In this article, new data from a corpus study and experimental data concerning the definiteness effect in English *there*-sentences is presented. In the corpus data, we find noun phrases including both strong quantifiers like *every* and definite expressions. It is shown that these examples are exceptional in the sense that they give rise to cardinal readings of the strong quantifier *every* and the definite determiner *the*. As cardinal readings are generally not ruled out by the definiteness restriction, these readings are not exceptions to the definiteness effect.

Keywords: *there*-sentences, existentials, definiteness effect, strong vs. weak quantifiers

1. Introduction

Ever since Milsark (1974, 1977), the definiteness restriction or the definiteness effect (= DE) in English *there*-sentences has been a major subject of linguistic research. The DE refers to the observation that the type of noun phrase that can occur in *there*-sentences (and other structures) is restricted: strong quantifiers, as in (1), and definite noun phrases, as in (2), are excluded.

(1) a. *There was everyone in the room.
b. *There were all viewpoints considered.
c. *There was each package inspected. (examples from Milsark 1977)

(2) a. *There is the wolf at the door.
b. *There were John and Mary cycling along the creek.
c. *There was Frank's article mentioned. (examples from Milsark 1977)

A systematic exception is the so-called list reading, as in (3), which has been put aside in most analyses of the definiteness effect to begin with.

(3) A: What could I give my sister for her birthday?
B: There's John's book on birdwatching. (Birner and Ward 1998: 116, quoting Abbott 1992)

Besides this, there are a number of exceptions that have been reported in the literature seemingly contradicting Milsark's generalization. Both definites and strong quantifiers are possible (see Bolinger 1977, Rando and Napoli 1978, Lumsden 1988, Abbott 1992, Ward and Birner 1995, McNally 1997, Birner and Ward 1998), as illustrated in (4) and (5), respectively:

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(4) a. There was every kind of doctor at the convention. (McNally 1998: 358)
b. There is every reason to believe it's wrong. (Rando and Napoli 1978: 307)
(5) a. There's the strangest bird in that cage.
b. There weren't the funds necessary for the project. (Bolinger 1977)

Depending on the analysis of the DE, these cases are set aside as exceptional or taken as especially insightful for the characterization and explanation of the DE in English *there*-sentences.

The aim of the paper[1] is twofold. It extends the empirical basis of those exceptional cases by reporting a corpus study conducted in the British National Corpus (BNC) (based on Hartmann 2008) and a rating study done by Schmidt (2011). Then, it provides an analysis of the DE that includes these additional data, but still maintains the general correctness of Milsark's original observation by showing in what ways these cases are exceptional.

The paper is structured as follows: Section 2 introduces the corpus study and a rating study concerning strong quantifiers. Section 3 discusses previous approaches to the DE and to what extent they are able to explain the data reported in section 2. Section 4 introduces the proposal and how it accounts for the data. Section 5 extends the proposal to definite DPs. Section 6 concludes the paper.

2. Strong quantifiers in there-sentences

2.1 Corpus study in Hartmann (2008)

Hartmann (2008) did a qualitative corpus study in the British National Corpus (= BNC 2001), searching for *there* and *every* in the span of 4 words, resulting in 208 relevant hits. The class of nouns that occur with *every* is limited, cf. (6). Most of these nouns seem not to allow for quantification straightforwardly, because the domain cannot be easily restricted as e.g. with *chance*, *possibility*, or it is not easily quantifiable distributively as e.g. *fear, risk* and similar cases (see below for a more detailed characterization).

(6) Nouns occurring with *every* in there-BE structures.
reason (75), *chance* (47), *possibility* (15), *likelihood* (13), *indication* (10), *sign* (6), *need* (6), *justification* (4), *incentive* (4), *opportunity* (4), *prospect* (4), *evidence* (4), *intention* (2), *risk* (1), *appearance* (1), *hope* (2), *comfort and luxury* (1), *encouragement* (1), *danger* (1), *fear* (1), *bit* (1), *advantage* (1), *argument* (1), *artefact* (1), *expectation* (1), *provision* (1).

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A few illustrations of the types of examples are given in (7)-(9):

(7) In a stimulating address, the Chief of the Air Staff, Air Chief Marshal Sir Peter Harding enlarged upon his theme of last year, and described how it was planned to improve Service life. *There was every reason to believe that the new modern, but smaller RAF would be well able to meet any demands upon it*. (BNC text="A67" n="316")

(8) AIDS is an everyday topic in the papers and on television; *there is every chance that your children have become interested*, even at a young age, but . . . (BNC text="A0J" n="777")

(9) If the river is contaminated with toxic waste *then there is every possibility all river life would be killed off for generations*. (BNC text="A6R" n="144")

2.2 Rating study in Schmidt (2011)

2.2.1 Starting point

Based on the data from Hartmann (2008), Schmidt (2011) hypothesizes that the crucial distinction is abstract vs. concrete nouns: the former are available in *there*-sentences with the strong quantifier *every*, whereas the latter are ruled out. Schmidt (2011) investigates this in a rating study with nouns that are ambiguous between an abstract vs. a concrete noun meaning.[2] Furthermore, she is interested in testing the claim from Siegel (2002). Siegel (2002) argues that the discourse particle *like* ameliorates the DE.

(10) a. *There is every book under the bed.
b. There is, like, every book under the bed.
c. *There's the school bully on the bus.
d. There's like the school bully on the bus. (examples from Siegel 2002: 48)

2.2.2 Experimental design

Schmidt (2011) investigates the two factors noun type (abstract vs. concrete) and discourse particle (+/− like), resulting in four conditions exemplified by the sample item in (11):

(11) Sample item
a. [abstr/−like] There is every argument that the UK legislation needs to be strengthened.
b. [concr/−like] There is every argument that is given in the equation.
c. [abstr/+like] There is, like, every argument that the UK legislation needs to be strengthened.
d. [concr/+like] There is, like, every argument that is given in the equation.

[2] The data here are presented courtesy of Corinna Schmidt. With her permission, I report her experimental design and results in detail to make them accessible to a wider research audience.

Twelve different lexical items were constructed (see Appendix). All nouns used are ambiguous between an abstract and a concrete reading. In the concrete conditions, the noun is modified by a relative clause. In the abstract conditions, the noun takes a complement *that*-clause in order to disambiguate the reading clearly.

The items were distributed over four lists in a Latin square design. Furthermore, 40 distractors were added. Each list was presented in four different orders. Participants were asked to judge the naturalness of the examples on a 7-point scale.

2.2.3 Results

32 self-reported native speakers from the US, Britain, Canada and Australia were recruited (eight per list). The overall results are given in figure 1:

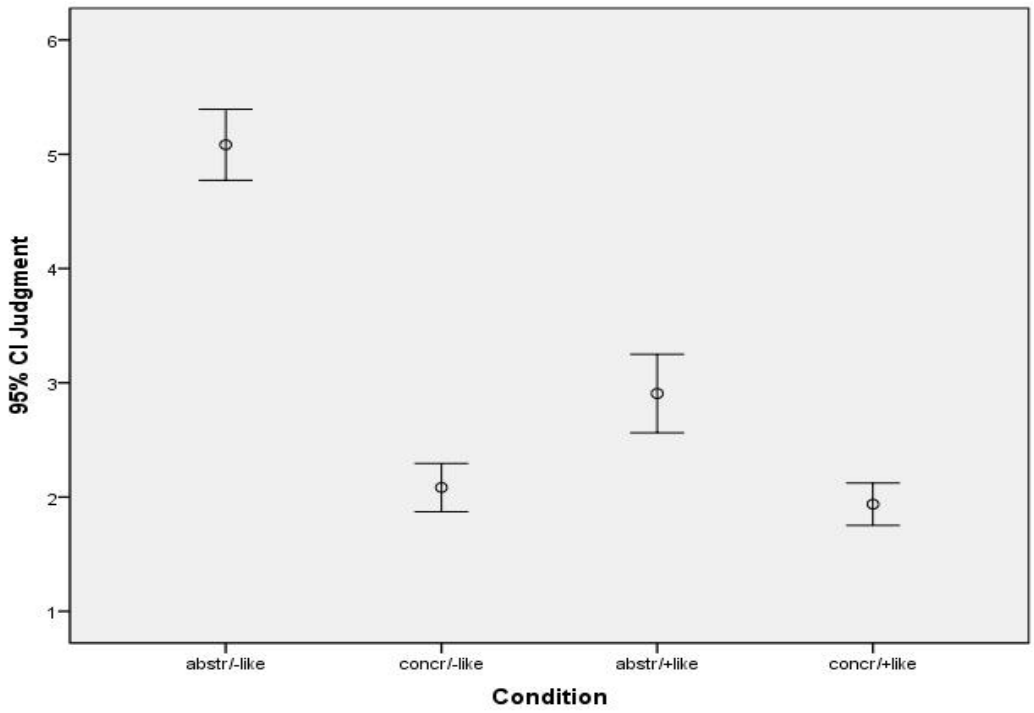


Figure 1: Ratings (95% confidence interval) per condition

The results were analysed with two repeated measures ANOVA with participants and items as random effects. Both factors show a significant main effect (abstract vs. concrete: F_1 (1,31) = 170.927, $p < .0001$; F_2 (1,11) = 107.985, $p < .001$; +/-like: F_1 (1,31) = 41.543, $p < .0001$; F_2 (1,11) = 68.581, $p < .001$). On average, sentences without the discourse particle *like* received a higher rating than sentences including *like*. Sentences with abstract nouns were rated higher than sentences with concrete nouns. Furthermore, the two factors show a significant interaction (F_1 (1,31) = 62.004, $p < .0001$; F_2 (1,11) = 126.303, $p < .001$). In the conditions without *like*, the difference between abstract vs.

concrete nouns is larger than the difference between the two in the conditions including *like*. Note that there is no difference between the conditions +/–like, when used with concrete nouns (t_1 (31) = 1.315, p = .198; t_2 (11) = 1.255, p = .246). They are equally unacceptable.

2.2.4 Discussion

As Schmidt (2011) reports, the results clearly show that the distinction between abstract vs. concrete nouns is significant and relevant to the acceptability of DPs headed by the strong quantifier *every* in *there*-sentences.[3]

Furthermore, Schmidt (2011) notes that the findings for *like* by Siegel (2002) could not be verified, probably because *like*, according to Siegel, is most common among "adolescent girls in the US" whereas the participants in this study comprised a larger group of people, both older and from different regions. Thus, the average rating for sentences including *like*, as in (12), is also only 3.750.

(12) a. She is, like, a teacher who really listens.
b. Lana hates, like, every coach.

3. Theoretical approaches to the definiteness effect

3.1 Introduction

There are a large number of previous approaches to the DE in English (and other languages). They can be divided into subgroups depending on whether they explain the DE in the syntax, semantics or pragmatics of *there*-sentences and definite/quantificational DPs.

3.2 Syntactic approaches

The major syntactic approaches to the DE seek the explanation of the DE in the licensing of post-verbal subjects. In Safir (1982 and 1985), *there* and the post-verbal subject are co-indexed, which leads to a binding principle C violation for definite DPs (and strong quantifiers). Safir claims that indefinite NPs have the special property that they can be exempt from binding at S-structure. Belletti (1988) claims that noun phrases in *there*-sentences are assigned a special case, partitive case, just as comparable examples in Finnish. As definite DPs and strong quantifiers are incompatible with partitive case, they cannot occur in these positions.

As far as I can see, these approaches cannot easily account for the exceptional cases reported above. As they single out indefinites as the special cases, they would need to state that the DPs with strong quantifiers are indefinite in some sense, and it is not obvious how exactly one could make this work.

[3] In the material, there is a confounding factor of relative clause vs. *that*-complement clause. However, there is no reason to assume that this confound has the effect shown here.

3.3 Semantic approaches

Semantic approaches to the DE assume that there is a semantic incompatibility of some sort between the meaning of strong quantifiers (and definite noun phrases) and the existential construction.

Milsark (1974 and 1977) specifies the interpretation of existential sentences in his E-Rule, basically taking the coda as the main predicate and the pivot as the subject of this predication.

It states that the number of individuals for whom the predicate specified in X holds is at least one. A cardinal determiner Q can specify the number of individuals for which X holds more precisely. Strong quantifiers are excluded because they do not denote cardinality, but quantify, and existential quantification is incompatible with any other form of quantification (over the same noun phrase). As a result, the quantifiers in English split into two classes: strong quantifiers that quantify over a domain and weak quantifiers that merely provide cardinality, as weak *some*.

Keenan (1987 and 2003) elaborates on this distinction between the two types of quantifiers. He calls the weak quantifiers existential quantifiers, as they allow a rephrasing with an existential verb, as in (13), without a change in meaning. Strong quantifiers do not pass this test, as in (14). Only the existential quantifiers can occur in *there*-sentences.

(13) a. Some student is a vegetarian.
b. Some student who is a vegetarian exists. (examples from Keenan 1987: 291)
(14) a. Every student is a vegetarian.
b. Every student who is a vegetarian exists. (examples from Keenan 1987: 291)

Keenan (2003) redefines the notion of existential quantifier in terms of conservativity: existential quantifiers are those that are conservative on their second argument (see De Swart 1998 for an introduction to the notion), and only these quantifiers can satisfy the **Coda Condition** given in (15):

(15) Coda Condition: The coda provides the domain of evaluation of *there*-sentences.

Diesing (1992) argues that the distinction between Milsark's strong and weak determiners is that weak determiners allow for a cardinal and quantificational reading, while strong determiners only allow for a quantificational interpretation. Quantifiers (both weak and strong) give rise to quantifier raising (= QR, see May 1977). As QR is prohibited in *there*-sentences (see Heim 1987), weak noun phrases have to remain inside the VP and only the cardinal reading is available. At first sight, this approach is not compatible with the data observed here. We will see below, however, that with the adjustment of also allowing a cardinal reading for strong quantifiers, it is a viable approach to retain this analysis.

McNally (1997 and 1998) follows a different approach. She suggests that the DE falls into two restrictions: (i) a restriction on definite noun phrases, which is essentially pragmatic, and (ii) a semantic restriction, namely a sortal restriction of the main predicate *there-be* (which she defines as meaning the instantiation of a property denoted by the pivot) to non-particulars (i.e. kinds, sorts, varieties, etc.). "Sortally restricted" basically means that the predicate imposes semantic restrictions on its argument. She illustrates this with the verb *gather* that semantically (not syntactically) requires a plural subject:

(16) a. *Every girl gathered in a different square.
b. Every crowd gathered in a different square. (examples from McNally 1998: 356)

McNally's account captures the occurrence of strong quantifiers with *kind*-nouns, as in (17).

(17) a. *There was every doctor at the convention.
b. There was every kind of doctor at the convention. (examples from McNally 1998: 356)

The NP in (17b) is a non-particular, while the one in (17a) is not, so the second one is available in *there*-sentences. As the interpretation of being a non-particular is a semantic property, Zamparelli (2000) observes that it is actually a problem that the *kind*-noun needs to be overtly present in *there*-sentences, even though the interpretation of *kind* is available independently of that, as the examples in (18) show.

(18) a. Most insects live on average 10 months.
b. Nowadays, every computer is available in at least two models.
c. Each car sold in the U.S. undergoes thorough crash tests. (examples from Zamparelli 2000: 65)

Instead he proposes a complex DP structure in which *every kind* is not the head of the phrase, but originates in a lower position (*a doctor of every kind*).

Concerning the data reported here, McNally's approach can handle the data to the extent that we are dealing with non-particulars. The crucial distinction that Schmidt (2011) makes in her experiment, concrete vs. abstract, can be seen as the distinction between particulars and non-particulars. However, as I will show below, the examples represented in the corpus study suggest that *every* does not have all the properties of a strong determiner in all of these examples. Thus, this approach seems not to be entirely correct.

3.4 Pragmatic approaches

Pragmatic approaches explain the definiteness effect in terms of a pragmatic restriction on the pivot. In Prince (1992), Ward and Birner (1995), Abbott (1992), and Zucchi (1995), the pivot has to be new in some sense (hearer-new or non-presuppositional). As definite DPs can only be hearer-new in specific contexts, only these occur in *there*-sentences. Zucchi's (1995) presuppositional account also extends to strong quantifiers. Strong quantifiers presuppose that their restrictor sets are non-empty. Thus, a phrase like *most children* presupposes that there is at least one child we are talking about. His Felicity Condition on *there*-sentences disallows any presuppositions about the set denoted by the noun phrase, including any presuppositions about it being empty and non-empty.

In a different line of research (see Hannay 1985, Borschev and Partee 2002, Mikkelsen 2002, Beaver et al. 2005, Francez 2007), the pivot has to be non-topical, or rather the focus of the clause. Combining the ideas of Keenan (2003) and Beaver et al.

(2005), Francez (2007) argues that the restriction on strong quantifiers is due to the fact that all proportional Generalized Quantifiers do not denote second-argument conservative quantifiers and thus, they are always topics according to Beaver's aboutness hypothesis. As the pivot only allows for predicate foci, strong quantifiers cannot occur in *there*-sentences. Nothing in this approach, however, predicts the difference found in the experimental study by Schmidt (2011), nor is it obvious how the corpus data can be included in this analysis.

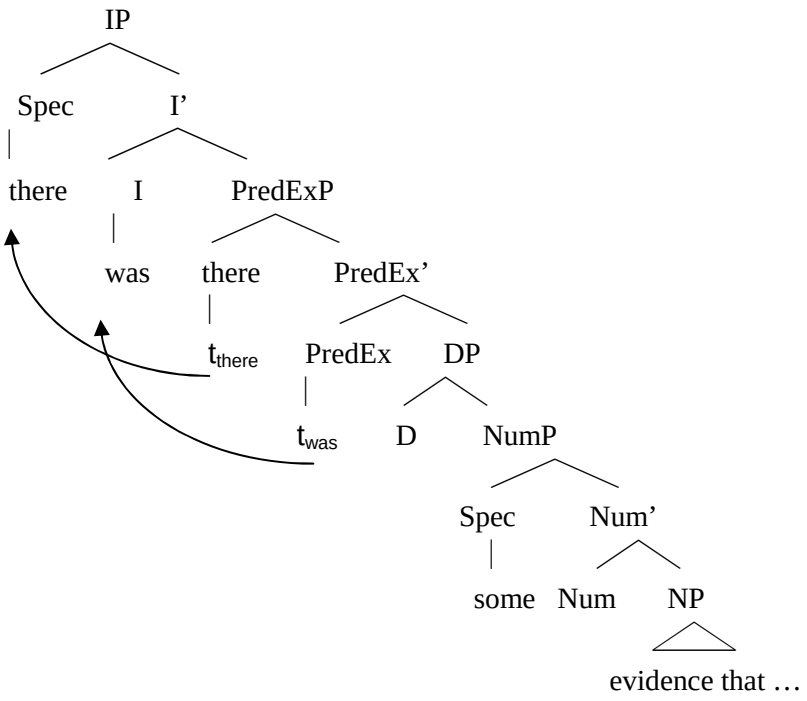
4. A syntax-semantic approach to the DE in English

The approach presented here basically relies on the syntactic approach presented in Hartmann (2008). I will show here how this approach can be extended to account for the experimental data and add further arguments in favour of the proposed analysis.

4.1 The syntax of existential sentences

In Hartmann (2008), I argued for the structure of existential sentences given in (19). I argued that the pivot is the main syntactic predicate in a predicative phrase, in which *there* functions as the subject. The pivot forms a complex DP. It contains an empty DP-layer that is licensed and bound by the existential quantifier. The coda is usually a frame adverbial, restricting the situation of which the DP is predicated (see Francez 2007 for further arguments for the coda being a frame adverbial).

(19)

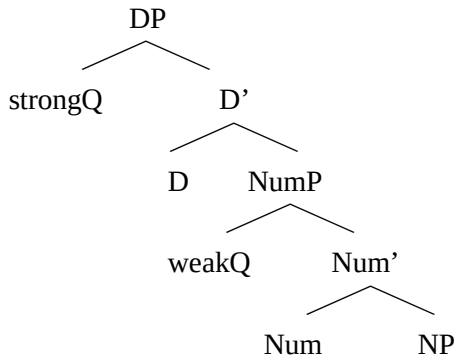


The structure is interpreted in the following way: A given situation introduced by *there* is such that it contains an individual of the type and amount specified by the omplex noun phrase. In order for that reading to arise, the D-layer of the noun phrase has to be empty to give rise to a default licensing of this layer by existential closure. If the D-layer is not empty, the list reading arises instead.

4.2 The definiteness effect

In the structure proposed in (19), the existential reading can only arise if the D-layer is empty. The DE is then a restriction on elements occurring in this D-layer. Assuming the DP structure in (20) (following Borer 2005 among others), strong quantifiers are positioned in exactly this layer. Therefore *there*-sentences are incompatible with strong quantifiers. Those quantifiers that have their position lower than the D-layer are possible.

(20)



The claim that the position in the DP correlates with strong vs. weak is by no means new and it appears in the literature in different guises. Some studies assume that weak quantifiers are adjectival (see Bowers 1975, Higginbotham 1985, Mandelbaum 1994 among others), while others propose that they are hosted in a functional projection different from and lower than DP (see Zamparelli 2000, Borer 2005 among others). Strong quantifiers are either assumed to appear in the specifier (or head) of DP (see Hudson 1989, Zamparelli 2000, Borer 2005 among others) or in a functional layer on top of DP (cf. QP in Sportiche 1988, Giusti 1991 among others; for an overview see Cardinaletti and Giusti 2006).

Evidence for the assumption that strong quantifiers are hosted in the D-layer or higher is that strong quantifiers cannot follow a definite determiner, while weak quantifiers usually can (cf. Bowers 1975, Borer 2005).[4]

(21) a. the many medals/ these several mistakes/ the few volunteers
b. *the most boys/ *the all boys/ *the both boys

[4] As Borer (2005: 140) points out there are two exceptions: *some* cannot occur following a quantifier: **the some boys*. Furthermore, *most* can follow the determiner *the*, presumably as part of a complex superlative form (Borer 2005), *the most beautiful girl*.

As we know from Milsark (1974 and 1977), some quantifiers are ambiguous between a weak and a strong reading, most prominently *some*, *many* and the numerals. If we want to derive ambiguities in meaning from ambiguities in structure, the quantifiers have to be assumed to be in different positions for the weak and the strong reading.[5]

I assume the DP structure in (20), though nothing important relies on the specific implementation as long as weak quantifiers occupy a position lower than DP, while strong quantifiers occupy DP or a higher position.

The DE is a combination of the requirement of existential closure of the DP and the lack thereof in structures in which the D-layer is actually filled.

4.3 Accounting for the corpus results

As *every* is a strong quantifier, it should be hosted in the D-layer. Therefore, it is expected that *every* is incompatible with the existential reading. Looking at the data from the corpus study, we see that *every* indeed does occur in *there*-sentences. However, these cases are exceptional: the meaning of *every* in *there*-sentences is not a strong quantifier reading. Intuitively speaking, *every* does not quantify over a domain, but it specifies a very high amount/degree. Thus, (7) does not mean that every reason to believe something about the RAF exists, but that the number of reasons to believe that was as large as it could be.

That this approach is on the right track can be seen in the following examples, in which a wide-scope reading of *every* is not available.

(22) Some employees should be given every opportunity to acquire stakes of the company they work in. (adapted from BNC, text="AM8" n="854")

This contrast can be seen more clearly in the following pair (23). (23) does not have a wide-scope of the strong quantifier: It does not mean that for every opportunity to finish in time there is at least one student that has it. This is clearly different in (23b), which does have wide-scope reading such that for every teacher there is at least one student that visits him.

(23) a. Some student has every opportunity to finish in time.
b. Some student visits every teacher.

I take this to mean that even a strong quantifier like *every* can be accommodated to a weak reading. In the tree structure in (20), *every* can be accommodated to occur in the specifier position of NumP, where it specifies AMOUNT. As, according to Borer (2005: 137ff), the quantifier *every* is base-generated low in the structure, it is not surprising that this is possible.

[5] There is a further issue of whether the weak/strong quantifiers are heads or phrases. I do not dwell on this issue. For some of the (weak) quantifiers it is clear that they occupy specifier positions as they can be phrasal: *at most five, exactly two*.

Further support for this approach comes from the fact that the combination of these nouns with *every* is comparably more frequent in *there*-sentences than of the same nouns occurring with another determiner, see Table 2. A χ^2 test reveals that there is a significant association between the type of determiner+noun and its occurrence in *there*-sentences ($p < .0001$; $\chi^2 = 200$). Thus, the special interpretation of the quantifier plus noun makes these combinations more prone to occur in a *there*-environment than its average distribution. Table 1 shows the hits for individual nouns with *there*.[6]

	everyN	there + everyN	ratio	DetN	there + DetN	ratio
every reason	182	77	.42	13777	1567	.11
every chance	111	46	.41	9389	747	.07
every possibility	31	17	.55	6723	614	.09
every likelihood	13	13	1	954	84	.08
every indication	36	11	.31	1757	239	.13
every need	35	8	.23	15625	2215	.14
every sign	45	6	.13	3323	636	.19
every opportunity	197	5	.02	7822	301	.03
every justification	13	5	.38	712	107	.15
every incentive	17	5	.29	760	82	.10
every prospect	10	4	.4	3098	115	.03
every evidence	6	4	.67	6229	1397	.2
	696	201		70168	8104	

Table 1: Number of hits of *every N* vs. *D + N* in *there*-sentences and non-*there* contexts.

	there	non-there	SUM
every + specialN	201	495	696
other-D + specialN	8104	62064	70168

Table 2: Number of hits of *every-N* vs. *D-N* in *there*-contexts and non-*there* contexts.

In sum, the crucial claim here is that the *every N* phrases found in the BNC are not quantificational. This reading is not readily available because these nouns are either not quantifiable by a distributive quantifier like *every* per se (e.g. *possibility, likelihood*) or the restrictor set over which they quantify is inherently difficult to be restricted (e.g. with *reason, justification*). This is because it is a set that cannot be limited by time and location variables. Therefore, *every* occupies a lower position in the D-structure and specifies amount/number. As the D-layer is empty in these cases, the DE does not arise.

4.4 Accounting for the experimental results

The main claim made above is that the *every* + noun combination found in the BNC are exceptional cases because they do not exhibit a quantificational reading, since

[6] Note that the noun *opportunity* seems to be an exception as the frequency does not change between the determiner types. It seems to me that *opportunity* is rather ambiguous between a strong and weak reading, whereas the other *every + noun* combination prefer the weak reading.

the noun denotes a concept that cannot be the restrictor of quantification. The distinction that Schmidt (2011) makes implements this distinction indirectly. Concrete nouns are quantifiable and the set can be restricted by a situational domain. Abstract nouns, in contrast, cannot. Thus, the combination of *every* + concrete noun strongly prefers a quantificational reading. When the strong (quantificational) reading is not readily available, a weak reading can be accommodated. This is the case either if the noun is not countable per se, as e.g. with *likelihood*, or the domain of quantification is difficult to limit, as e.g. with *every*. As *there*-sentences do not allow for strong quantifiers, only weak readings of *every* occur. Yet, the weak reading is not limited to the domain of *there*-sentences, but can be found with the respective nouns in other contexts, too.

4.5 A note on kind-nouns

The analysis provided does not obviously include the observation about the availability of *every kind* in *there*-sentences.

(24) a. There was every kind of wine available for tasting.
b. ??There was every worker ready.

Kinds are quantifiable and it is not obvious that the domain of quantification could not be limited. However, these phrases are special, because they seem to behave more like indefinites than like quantifiers in other environments. Carlson (1977b) already observed that phrases like *this kind of X* can have an existential interpretation along the lines of bare plurals.

(25) a. Bill shot this kind of animal yesterday.
b. This kind of animal is sitting on my lawn.
c. I saw this kind of animal in the zoo. (examples from Carlson 1977b: 46)

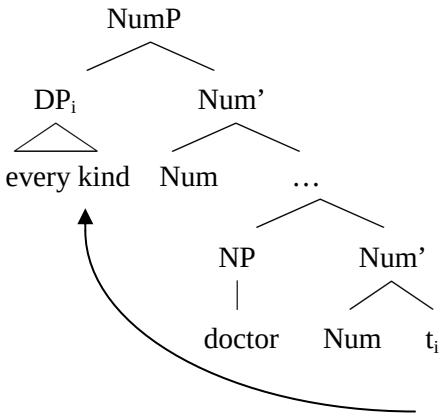
In (25a), we are not talking about a specific kind of the type animal that has been shot, but about some members of a specific kind of animals. The interpretation is existential and not definite, despite the presence of the determiner *this*. To account for these data, Carlson (1977b) suggests that *this kind* acts as a modifier of the noun *animal*.

We can see this effect of a special interpretation of these *kind*-phrases also in combination with strong quantifiers. A sentence like *John shot every kind of animal yesterday*, modelled after Carlson's (25a), does not mean that for every animal kind, it is true that John shot the whole kind (and made them extinct). It means that John shot some members of every kind of animal.

Wilkinson (1995) argues for a second reading of *kind* to account for the occurrence of *kind* in structures like *an animal of that kind*, in which *kind* is not a modifier but rather a simple predicate. Zamparelli (2000) takes up these analyses and argues that the full DP *every kind* is base generated lower in the structure in parallel to the structures *NP of D kind*. Crucially, the site where the DP ends up is NumP (or PDP – Predicate Determiner Phrase – in Zamparelli's terms). Following this analysis, it becomes clear why these strong quantifiers that range over kinds can occur in both *there*-BE and copula structures.

They do not modify the head noun of the structure, i.e. wine in (24a), but the quantifier modifies the noun *kind* and this phrase ends up in the specifier of NumP. The resulting structure is given in (26).

(26) adapted and simplified from Zamparelli (2000: 116)



It is not entirely clear to me whether the DP *every kind* really moves from below, though. However, what I think is true about the structure is that *kind* is not the head noun. In the existential reading pointed out for (25-a) above, as well as in *there*-BE structures and copula structures, we are talking about animals and not about kinds.[7]

5. Extension: Definite DPs in existential *there*-sentences

As we have seen above, the data indicate that the strong quantifier *every* can actually be reanalysed to be weak (i.e. it has a numerical/amount reading) when combined with a specific class of nouns. The observation is analysed in terms of two syntactic positions for the strong quantifier: a lower position hosted in NumP and a higher strong position in the D-layer. Crucially, in the analysis here, strong quantifiers are incompatible with the existential reading, as the D-layer needs to be empty for the existential reading to arise.

This analysis can be extended to the second half of the DE, namely the restriction on the occurrence of the definite determiner *the*, as given in (2) above. The general line of argumentation is the same here. We do indeed find quite a number of noun phrases occurring in *there*-sentences with an existential reading. However, these occurrences are only weak readings, in the same sense above, namely a numerical/amount reading, more

[7] This invites an alternative analysis of these phrases in terms of semi-lexical nouns, cf. van Riemsdijk (1998), Vos (1999) and Tănase-Dogaru (2007) for interesting proposals. It also extends to cases of definite DPs including *kind*-nouns:

(i) We were invited to a 'banquet' on the evening after our arrival here, but actually *there wasn't the usual kind of formal speech making.* (BNC, text="KAL" n="366")

traditionally the uniqueness reading of the definite determiner. The strong reading, i.e. the reading it has in the specifier of D position, is the reference to known entities.

Thus, I take the DE in English to be a uniform phenomenon (contra McNally 1997) in the sense that it is the restriction of the D-layer which has to be empty. There is a difference though between quantifiers and the definite determiner: while the former receive a quantificational reading in the specifier of D, the definite determiner receives a discourse-related reading.[8] Furthermore, the definite determiner naturally has both a strong and weak reading, while the strong quantifier *every* seems to acquire this reading only when the quantificational reading is not available.

5.1 Corpus data

English *there*-sentences can be frequently found with noun phrases headed by the definite determiner *the*. However, in many cases, this includes the list reading. In order to exclude the list reading per se, the BNC was searched for the combination of *there + neg + the*, which resulted in 259 relevant hits (based on Hartmann 2008).

The hits can be classified into five different groups: (i) (Multiply) modified noun phrases; (ii) superlatives; (iii) amount relatives; (iv) *The* + noun. I will argue here, that all of these separate groups show readings of uniqueness of the definite determiner. The uniqueness reading is analysed with the definite determiner occurring in the weak position; thus, this reading is compatible with the existential reading.

5.1.1 (Multiply) modified noun phrases

In the corpus data, we find a number of cases of modified noun phrases. They are modified by relative clauses (with or without an additional modification by an adjective, as in (27) and (28), by to-infinitives, as in (29) and (30), or include a complement phrase, as in (31).

(27) The Army had taught him that, too, and the SAS acceptance tests had rammed the lesson home by sending him out over the damp Brecon Beacons with a 55-lb Bergen rucksack knowing he had to cover a certain distance in a certain time but not knowing that when he had done it, *there wouldn't be the trucks they had promised* but a vague assurance of a cup of tea if he kept on marching a few more miles in that direction. (BNC, text="H86" n="1281")

(28) But Fenella Fielding survived it all and enjoyed the experience. '*There wasn't the awful competitiveness that we had on stage*,' she told me. (BNC, text="J0W" n="1778")

(29) There are patients here looked after by their own GPs especially on the medical side and of course they know their GPs. The GPs know them and their

[8] McNally (1997) argues for two types of restrictions of the DE on the basis of Catalan data, where definite DPs are indeed possible with the existential construction. It seems to me though that the Catalan existential construction can be truly ambiguous between an existential and locative construction, similar to Italian, as analysed in Zamparelli (2000).

backgrounds and their relatives can come. But it's more than just a question of who the patients prefer to be treated by. If *there aren't the doctors to run it*, it's not much of a hospital. (BNC, text="KRM" n="487")

(30) We've seen flashes of the old Liverpool but all too often they've fallen below acceptable standards and that's the problem – their consistency has gone and that was always their hallmark. The reasons? The team doesn't automatically pick itself any more. *There aren't the players on the staff to put pressure on those in the team to perform.* (BNC, text="CEP" n="1051")

(31) Pressures to reduce the impact weapons systems costs on the defence budget have led to systems being purchased from abroad, invariably from the US. In recent years this has increased, and the US has become the dominant partner. Short term this has enabled the UK to maintain a state-of-the-art capability, although *there has not been the desired reduction in the total percentage of the defence budget* committed R&D. (BNC, text="HJ1" n="4879")

These noun phrases provide a lot of information about a specific referent, and the definite determiner expresses that this referent is unique. There is no mentioning of these referents in the discourse, nor is there any indication that the reader is expected to know the referent. It is introduced as a unique individual.

5.1.2 Definites with superlatives

Similar reasoning applies to the noun phrases with superlative adjectives. As superlatives only hold of one individual in a given relative domain, the definite determiner again is there to comply with this uniqueness.

(32) But there is a fall-back position and that is that the European Community have a directive called the Environmental Impact Assessment Directive that requires that before a major project of this type is put through *there must be the fullest public consultation*. In my view, although there's a current debate about this *there has not been the fullest public consultation* and I would er myself be minded to invoke the er EC directive on this er in order to try and er to make sure that the the public feel they are fully aware of what the proposals are. (BNC, text="HMP" n="117")

An additional argument in favour of this position comes from the so-called scale-reversal effect, which negation gives rise to (cf. Fauconnier 1975, Krifka 1995). Negation of a part of an individual implies the negation of all higher amounts of that individual. Thus, a presuppositional reading of *there was no X* arises. In (33), the negation denies the lowest amount of the scale of a sign of polite thank-you. By implication, the reading that arises is that there was no sign of a polite thank-you.

(33) But Doreen retained the sulkiness she'd brought to the table, and when Jean placed fruit and cereal before her *there was not the slightest sign of a polite thank-you*. (BNC, text= "HHB" n="2861")

5.1.3 *The* with amount relatives

Definites are also found with *there* in relative clauses that embed another *there*-BE structure: amount relatives (cf. Carlson 1977a, Heim 1987, Grosu and Landman 1998). The amount relatives are known to be possible with a subset of determiners. In the BNC data, I found a few examples in which these amount relatives were embedded in an additional *there*-sentence. The interpretation of these phrases clearly includes the meaning of amount or number. Thus, the definite determiner is used here to specify the unique amount given in the complex noun phrase. Again, we are dealing with the uniqueness interpretation of the determiner that is hosted below the D-level that needs to be empty for the existential reading to arise.

(34) [...] although today it must be admitted that single people, don't get offered one bedroom flats, but then in those days *there wasn't the shortage of accommodation that there is today.* (BNC, text="F82" n="85")

(35) And it's not all honey, starting somewhere at six in the morning if you live eight or nine miles off. *There were not the multitude of motorcars about in those days, as there are now*, but that was one of the firms that was trying to make it, and has done it, like that. (BNC, text="FXU" n="128")

(36) If we start from the bottom up, I think there has been a big advance in women as professionals, as producers, directors, starting to come into sound, quite a lot of editors, slightly more difficult with cameras. *There aren't the professional barriers there that I think there were ten years ago*. (BNC, text="ATA" n="704")

5.1.4 *The* + noun

Finally, there are a few examples of the combination of the definite determiner with a simple noun. There are two subcases. The first class is special in that it also implies an amount reading.

(37) Her husband is a restaurant worker. He is out all day from 11 am. to midnight. 'Where does he work,' I ask. 'I don't know the place. I have never been there. I don't know the name or address except that it is a club of some sort. He never really talks about his work. *There isn't the time*.' (BNC, text="A6V" n="320")

(38) Was what it erm finally brought about the end of the strike in twenty six? Pardon? What was it finally brought about the end of the strike in nineteen twenty six? Well it were just like I like I the unions weren't as, as er financially well off as they were er at the present day. *There was not the money*, we were forced to. (BNC, text="GYU" n="94")

The second class shows reference to a unique event/concept, *the war* in (39) and *the freedom* in (40). Thus, these phrases are not discourse-referential, but rather they express uniqueness.

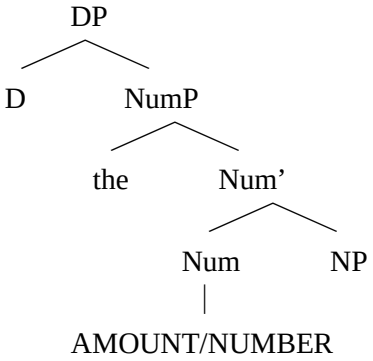
(39) She shared her home with Irina and me and watched over us as fiercely as if we were her own children. She could be brisk and tender by startling turns. She was more demonstrative than our mother, more daring, less inhibited, more fun. She once confessed how unhappy she had been at home. 'Even if *there hadn't been the war*, I would never have gone back.' (BNC, text="HD7" n="1361")

(40) But fox hunting doesn't address that. Fox hunting falls purely and simply on the side of unnecessary cruelty. Freedom, because *there is not the freedom here*. (BNC, text="JNB" n="413")

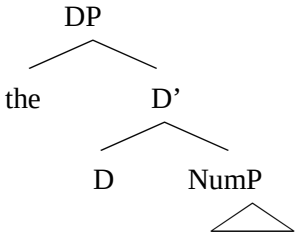
5.2 Analysis

In parallel to the strong vs. weak reading of *every*, I analyse the strong/weak distinction with definite determiner as a distinction that correlates with a different syntactic position.

(41) a. Weak reading of *the*



b. Strong reading of *the*



This analysis of the two types of Ds is supported by an observation made by Brugger and Prinzhorn (1996). They report that Bavarian has two different definite determiners: one that expresses uniqueness, and one that provides reference to a previously established discourse entity (see also Scheutz 1988). Brugger and Prinzhorn (1996) also propose that these two different types occupy different syntactic positions.

In sum, the fact that we indeed do find definite determiners in English *there*-sentences does not mean that the definite restriction does not hold. Rather, as I propose here, the definite determiner in *there*-sentences is restricted to one type of meaning, namely the uniqueness reading. I take this reading to be the weak reading in the sense that it is related to a lower projection in the determiner phrase, labelled NumP here. With *the* in this position, the D-layer remains empty and the definiteness effect does not arise.

6. Conclusions

This paper shows that *every* and *the* do occur in existential sentences in English on the basis of both corpus data and experimental results. The main claim here is that the

examples are only apparent exceptions to the DE restriction, as phrased originally in Milsark (1974, 1977): strong quantifiers are not allowed in *there*-sentences. The major claim here is that the occurrences of *every* and *the* in *there*-sentences are actually weak noun phrases: *every* is not quantificational and *the* shows the uniqueness reading. The occurrence of *every* in *there*-sentences depends on the type of noun it combines with: only abstract nouns are possible. As these nouns cannot serve as restrictor for the quantifier, accommodation is necessary; the syntactic space makes an amount reading available. In contrast, definite DPs do not need accommodation but have both a strong and weak reading readily available. I follow the analysis in Hartmann (2008) that the DE is a restriction on the outer D-layer in the pivot to be empty. As strong quantifiers occupy this position the D-layer needs to be empty. In the exceptional cases, *the* and *every* do not occupy this position and therefore the DE does not arise. Thus, the cases discussed here are only apparent exceptions to the DE. They are exceptional in the availability of the weak reading.

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Appendix: Experimental items from Schmidt (2011)

(42) Item 1: SIGN

a. There is every sign that Mr. Black wants his staff on a far tighter rein.
b. There is every sign that was installed.
c. There is, like, every sign that Mr. Black wants his staff on a far tighter rein.
d. There is, like, every sign that was installed.

(43) Item 2: JUSTIFICATION

a. There is every justification that this work should be subsidised.
b. There is every justification that the suspects gave.
c. There is, like, every justification that this work should be subsidised.
d. There is, like, every justification that the suspects gave.

(44) Item 3: PROSPECT

a. There is every prospect that a successful season is forthcoming.
b. There is every prospect that was contacted.
c. There is, like, every prospect that a successful season is forthcoming.
d. There is, like, every prospect that was contacted.

(45) Item 4: EVIDENCE

a. There is every evidence that protein foodstuffs are lamentably deficient.
b. There is every evidence that is relevant for the proceedings.
c. There is, like, every evidence that protein foodstuffs are lamentably deficient.
d. There is, like, every evidence that is relevant for the proceedings.

(46) Item 5: ARGUMENT

a. There is every argument that the UK legislation needs to be strengthened.
b. There is every argument that is given in the equation.
c. There is, like, every argument that the UK legislation needs to be strengthened.
d. There is, like, every argument that is given in the equation.

(47) Item 6: INCENTIVE

a. There is every incentive that a challenging set of guidelines has to be produced.
b. There is every incentive that was spent on the development of the health care system.
c. There is, like, every incentive that a challenging set of guidelines has to be produced.
d. There is, like, every incentive that was spent on the development of the health care system.

(48) Item 7: INTEREST

a. There is every interest that the student furthers his education.
b. There is every interest that they share.
c. There is, like, every interest that the student furthers his education.
d. There is, like, every interest that they share.

(49) Item 8: SERVICE

a. There is every service that you could possibly want.
b. There is every service that is held at St. Mary's Chapel.
c. There is, like, every service that you could possibly want.
d. There is, like, every service that is held at St. Mary's Chapel.

(50) Item 9: TRUST

a. There is every trust that he will return home soon.
b. There is every trust that is established.
c. There is, like, every trust that he will return home soon.
d. There is, like, every trust that is established.

(51) Item 10: IMPRESSION

a. There is every impression that the global corporations are only interested in "dialogue" when they set the rules.
b. There is every impression that is made of the patient's denture.
c. There is, like, every impression that the global corporations are only interested in "dialogue" when they set the rules.
d. There is, like, every impression that is made of the patient's denture.

(52) Item 11: SIGNAL

a. There is every signal that one is witnessing something great.
b. There is every signal that was recorded.
c. There is, like, every signal that one is witnessing something great.
d. There is, like, every signal that was recorded.

(53) Item 12: DEMONSTRATION

a. There is every demonstration that he is of supreme intelligence.
b. There is every demonstration that is held against the project.
c. There is, like, every demonstration that he is of supreme intelligence.
d. There is, like, every demonstration that is held against the project.