

## Two Types of Negative Polarity Items

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### 1. Two Recent Accounts of *Any*

Treatments of negative polarity items (NPIs) in theoretical linguistics are often primarily concerned with the English word *any*.<sup>1</sup> However, within the class of NPIs there is considerable variation in distribution and interpretation, both within English and cross-linguistically. This paper contributes to a broadening of our perspective by discussing two types of NPIs found in Dutch and other languages, and comparing their properties to those of *any*. The theoretical background for the discussion is provided by two recent analyses of *any*.

As is well-known, *any* can be used both as an NPI and as a free-choice item:

- (1) John doesn't know any lawyers.
- (2) Any lawyer could tell you that.

Initial attempts to unify these two uses by assuming that *any* is uniformly a wide scope universal quantifier are now widely considered to be inadequate in the light of evidence showing that at least negative polarity *any* must be existential (Ladusaw 1979, Carlson 1980). More recently, a different kind of unified approach has been proposed according to which *any* is not a universal quantifier but an indefinite, building on the Kamp/Heim view of indefinites as items whose quantificational force depends on their context. The two accounts of *any* I will discuss here both take this approach.

One account is that of Lee and Horn (1994) (henceforth: L&H). According to their

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proposal, *any* is an indefinite that incorporates the semantics of the scalar focus particle *even*. This analysis is a recent representative of a whole line of research that regards *any* (and NPIs generally) as referring to the extreme value on some scale (e.g. Schmerling 1971, Fauconnier 1975a,b, Krifka 1994, Israel 1994, Lahiri 1995). In L&H's analysis this scale can either be a 'quantity scale' or a 'kind scale', illustrated by the paraphrases in (3) and (4), respectively.

- (3) John doesn't know any lawyers = John doesn't know even a single lawyer  
 (4) Any lawyer can tell you that = Even the most ignorant lawyer can tell you that

The other recent unified analysis of *any* as an indefinite is due to Kadmon and Landman (1993) (henceforth: K&L). According to them an NP of the form *any CN* has the semantics of the corresponding indefinite *a CN* with additional semantic/pragmatic characteristics contributed by *any*. These semantic/pragmatic characteristics are widening and strengthening:

- WIDENING: In an NP of the form *any CN*, *any* widens the interpretation of the common noun phrase (CN) along a contextual dimension.
- STRENGTHENING: *Any* is licensed only if the widening that it induces creates a stronger statement, i.e., only if the statement on the wide interpretation entails the statement on the narrow interpretation.

Although the proposals by K&L and L&H are similar in certain ways, they also differ in some respects. In K&L's analysis the notion of scale does not play any role. Widening just refers to the replacement of the set denoted by the CN by a superset; the elements of these sets do not have to be ordered on a scale. In K&L's theory there also is no sense in which *any* is associated with an endpoint of a scale. Another difference is that *even* is a focus particle, and on a L&H-style analysis we therefore expect focus to play a role in the interpretation of *any*. If K&L's analysis is right, we would not expect *any* to be sensitive to focus.

Part of the motivation for L&H's theory comes from data showing that many languages have NPIs which explicitly consist of an indefinite plus some particle meaning *even*. Examples of such NPIs — which I will call *even-NPIs* — can be found in Dutch, German, Hindi and Korean (Lee and Horn 1994, Lahiri 1995). The discussion in this paper is mostly based on data from Dutch, but I hope it has some relevance for other languages as well. The question therefore is not whether there are NPIs which can be analyzed as an indefinite plus *even*, but whether all NPIs should be analyzed that way. The main point of this paper is to argue that this is not the case. I will show that there is a second class of NPIs in Dutch (referred to as *wh-NPIs*) which differ from the *even-NPIs* precisely in the fact that they are neither focus-sensitive nor scalar. For these NPIs a non-scalar analysis along the lines of K&L may be more appropriate. A further question is whether English *any* behaves like the scalar *even-NPIs*, as L&H predict. Again the answer is no. By the criteria that are developed to show that Dutch *wh-NPIs* are different from *even-NPIs*, *any* turns out to behave just like the non-scalar *wh-NPIs*. However, as I will show in the final section, there also is one respect in which *even-NPIs* and *wh-NPIs* pattern

alike but contrast with *any*. I will suggest that this is due to the fact that *any* can be used non-emphatically, but *wh*-NPIs and *even*-NPIs can't.

## 2. *Even*-NPIs

Dutch has a class of NPIs which overtly express the semantics that L&H propose for English *any*. They consist of an indefinite NP (or other phrase) preceded by a particle meaning 'even'. The particle in question is *ook maar* (Paardekooper 1979, Vandewege 1980/81, van der Wouden 1994).<sup>2</sup> Some examples of this type of NPI are given in (5).

- (5) *ook maar iemand* ('even somebody/anybody')  
*ook maar iets* ('even something/anything')  
*ook maar een boek* ('even a/one book')  
*ook maar ergens* ('even somewhere/anywhere')

The claim that the particle *ook maar* (lit. 'also only') means 'even' requires some explication. Rooth (1985; ch. IV) has shown that there are two kinds of *even* in English: ordinary *even* and NPI *even*, which only occurs in downward entailing contexts (but see Wilkinson 1993 for an opposing view). In English the two forms of *even* are homophonous, but in many other languages they are distinguished lexically (von Stechow 1991, König 1991). One of these languages is Dutch, which uses *zelfs* for ordinary *even*, but *ook maar* for NPI *even*. *Zelfs* and *ook maar* are focus particles (just like *even*), which means that they are associated with a syntactic phrase bearing intonational focus. The use of focus presupposes the existence of a set of alternatives to the focused item. When associated with a scalar focus particle like *zelfs* or *ook maar*, these must be ordered on a scale which ranks the alternatives according to how likely they are to satisfy the open proposition obtained by replacing the focused item with an appropriate variable. The focused constituent must represent the item on the bottom of the scale, that is, the least likely alternative. This can be illustrated with the following example (small capitals indicate stress or pitch accent):

- (6) Niemand heeft dit boek ook maar GEOPEND.  
 no one has this book even<sub>NPI</sub> opened  
 'No one has even OPENED this book.'

Here the relevant scale must be one ranking various actions one can perform with a book, for instance: reviewing it, reading it, burning it, opening it, and so on. The use of *ook maar* in (6) introduces the presupposition (or conventional implicature) that *opening this book* is the least likely value for *X* which would make the open proposition "No one has *X*-ed this book" true. For the purposes of this paper, this informal characterization of the semantics of *zelfs* and *ook maar* will have to suffice. For more explicit accounts of the semantics of scalar focus particles, the reader is referred to Jacobs (1983), Rooth (1985),

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<sup>2</sup>*Ook maar* has a stylistic variant, *zelfs maar*, and even the combination *zelfs ook maar* is found. In forthcoming work I plan to discuss the subtle difference between *ook maar* and *zelfs maar*.

von Stechow (1991), and references cited there.

Coming back to the class of *even*-NPIs in Dutch (that is, indefinites preceded by *ook maar*) (7) can serve as a typical example. Here *ook maar* is attached to the indefinite NP *een student* ('one student'), where the numeral is focused. The scale is therefore one that ranks natural numbers (1, 2, 3, ...). Since talking to *m* students implies talking to *n* students for any *n* such that  $0 < n < m$ , the least likely value for *n* in "No one has talked to *n* students" is  $n=1$ . Below we will see that a different presupposition is introduced if instead of the determiner the noun is focused.

- (7) Niemand heeft met *ook maar* EEN student gesproken.  
 nobody has with even<sub>NPI</sub> one student talked  
 'Nobody has talked to even ONE student.'

Although the indefinite *een student* ('a/one student') itself is not an NPI, *ook maar een student* is. It can only be used in the family of NPI-licensing contexts known from the literature, which includes comparatives, questions, and conditionals (for more details about the distribution of *ook maar*, see van der Wouden 1994):

- (8) Hij heeft met (\**ook maar*) een student gesproken.  
 he has with (even<sub>NPI</sub>) a student spoken  
 'He has spoken with a student'
- (9) Hij verdient meer dan *ook maar* IEMAND gedacht had.  
 he earns more than even<sub>NPI</sub> anyone/someone thought had  
 'He's earning more than anyone had thought.'
- (10) Heb je met *ook maar* IEMAND gesproken?  
 have you with even<sub>NPI</sub> anyone/someone spoken  
 'Did you speak with anyone?'
- (11) Als hij met *ook maar* EEN student heeft gesproken, weet hij dat dit niet kan.  
 if he with even<sub>NPI</sub> one student has spoken, knows he that this not can  
 'If he has spoken with any student, he knows that this is impossible.'

### 3. *Wh*-NPIs

The second type of NPI found in Dutch consist of a *wh*-phrase followed by the particle-combination *dan ook* (lit. 'then also').<sup>3</sup> Some examples are given in (12) (see also Paardekooper 1978):

- (12) a. wie dan ook ( 'anybody')  
           who PRT PRT
- b. welke jongen dan ook ( 'any boy')  
           which boy PRT PRT

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<sup>3</sup>As stylistic variant of *wh- dan ook*, we also find *wh- ook* and *wh- dan ook maar*.

- c. welke twee jongens dan ook            ('any two boys')  
 which two boys PRT PRT

Just like *even*-NPIs, *wh*-NPIs can occur in the standard NPI-environments, such as the scope of a negative quantifier like *niemand* ('no one'), comparatives, questions and conditionals:

- (13) Niemand heeft met welke student dan ook gesproken.  
 no one has with which student PRT PRT spoken  
 'No one has spoken with any student.'
- (14) Hij verdient meer dan wie dan ook gedacht had.  
 he earns more than who PRT PRT thought had  
 'He's earning more than anyone had thought.'
- (15) Heb je met wie dan ook gesproken?  
 have you with who PRT PRT spoken  
 'Have you spoken with anyone?'
- (16) Als hij met welke student dan ook heeft gesproken, weet hij dat dit niet kan.  
 if he with which student PRT PRT has spoken, knows he that this not can  
 'If he has spoken with any student, he knows that this is impossible.'

Unlike *even*-NPIs, however, *wh*-NPIs also have a free-choice use, which is illustrated in (17) and (18).

- (17) Je mag trouwen met wie dan ook.  
 you may marry with who PRT PRT  
 'You may marry anyone.'
- (18) Kasparov kan winnen van welke tegenstander dan ook.  
 Kasparov can win against which opponent PRT PRT  
 'Kasparov can win against any opponent.'

*Wh*-NPIs then are allowed in (roughly) the same set of contexts as English *any*. Just like *any*, they are excluded in straightforward non-intensional, episodic sentences:

- (19) \*Jacob is gisteren getrouwd met wie dan ook.  
 Jacob has yesterday married with who PRT PRT  
 \*'Jacob married anyone yesterday.'

Giving a formal characterization of the notion of free-choice context is notoriously difficult, and I will not try to do so here. I will come back to the contrast between *wh*-NPIs and *even*-NPIs with respect to free-choice readings in section 6.

#### 4. Three Differences between *Even*-NPIs and *Wh*-NPIs

In many cases, *even*-NPIs and *wh*-NPIs can be substituted for each other without a change in meaning or grammaticality:

- (20) a. Niemand heeft met ook maar een student overleg gepleegd.  
no one has with even<sub>NPI</sub> one student consulted  
'No one consulted any students.'
- b. Niemand heeft met welke student dan ook overleg gepleegd.  
no one has with which student PRT PRT consulted  
'No one consulted any students.'
- (21) a. Iedereen die ook maar ergens naar school geweest is moet kunnen lezen.  
everyone who even<sub>NPI</sub> some/anyplace to school been has must can read  
'Everyone who has been to school anywhere must be able to read.'
- b. Iedereen die waar dan ook naar school geweest is moet kunnen lezen.  
everyone who where PRT PRT to school been has must can read  
'Everyone who has been to school anywhere must be able to read.'

This suggests that the two types of NPIs have the same interpretation. It can be shown, however, that *even*-NPIs and *wh*-NPIs behave differently under certain conditions. These differences come down to the fact that whereas *even*-NPIs are inherently scalar and sensitive to focus, *wh*-NPIs are neither.

The first contrast between *even*-NPIs and *wh*-NPIs has to do with the effect of focus on interpretation. Since *even* is focus-sensitive, we expect the interpretation of *even*-NPIs to partly depend on focus. This is indeed what we find:<sup>4</sup>

- (22) Niemand heeft ook maar EEN stripboek gelezen.  
no one has even<sub>NPI</sub> ONE comic book read  
'No one has read even ONE comic book'
- (23) Niemand heeft ook maar een STRIPBOEK gelezen.  
no one has even<sub>NPI</sub> a COMIC BOOK read  
'No one has read even a COMIC BOOK'

In (22), the focus is on the numeral, and the scale is therefore one of numbers (1, 2, 3, etc.). In (23), the head noun is focused, and the relevant scale is one ranking different kinds of reading materials, say comic books, novels, textbooks and encyclopedias. As a result the sentences give rise to different scalar presuppositions. (22) says that  $n=1$  is the least likely value to make the open proposition "No one read  $n$  comic books" true. (23) presupposes that the open proposition "No one read an  $X$ " is least likely to be true for the value  $X=$  comic book. This presupposition will for instance be satisfied in a context where people prefer reading comic books to reading other things, such as novels. (24) further illustrates the focus-sensitivity of *even*-NPIs. Here focus can be in at least five different places, each resulting in different scalar presuppositions.

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<sup>4</sup>I assume that the indefinite determiner *een* (where the vowel is a schwa) is just the unstressed form of the numeral *een* [en] (sometimes spelled *één*).

- (24) a. Niemand heeft ook maar EEN artikel over een popster gelezen.  
 no one has even<sub>NPI</sub> one article about a rock star read  
 `No one has read even ONE article about a rock star.'  
 b. Niemand heeft ook maar een ARTIKEL over een popster gelezen.  
 c. Niemand heeft ook maar een artikel OVER een popster gelezen.  
 d. Niemand heeft ook maar een artikel over EEN popster gelezen.  
 e. Niemand heeft ook maar een artikel over een POPSTER gelezen.

By contrast, the interpretation of *wh*-NPIs is independent of focus. Ordinarily, stress is always on the *wh*-word, and putting it somewhere else is rather marginal to begin with. But to the extent that it is possible to focus different parts of the noun phrase in sentences like (25) and (26), this merely has the effect of an unbound focus: the focused constituent contains new information or is contrasted with something else. No scales are introduced and there are no scalar presuppositions of the kind we get in (22)-(24). For instance, if the head noun *stripboek* ('comic book') is focused in (25), no presuppositions arise concerning the likelihood of people reading comic books as opposed to, say, novels. This means that in (25) and (26) there is no association with focus in the sense of Rooth (1985). Unlike *even*-NPIs, *wh*-NPIs are not focus-sensitive.

- (25) Niemand heeft welk stripboek dan ook gelezen.  
 no one has which comic book PRT PRT read  
 `No one has read any comic books.'  
 (26) Niemand heeft welk artikel over welke popster dan ook gelezen.  
 no one has which article about which rock star PRT PRT read  
 `No one has read any article about any rock star.'

Another difference between *even*-NPIs and *wh*-NPIs can be observed when we consider conditionals containing NPIs with a numeral greater than *one*:

- (27) Als ook maar TWEE studenten dit probleem uitkiezen, ben ik tevreden.  
 if even<sub>NPI</sub> two students this problem choose, am I satisfied  
 `If even (only) TWO students choose this problem, I'm satisfied.'  
 (28) Als welke twee studenten dan ook dit probleem uitkiezen, ben ik tevreden.  
 if which two students PRT PRT this problem choose, am I satisfied  
 `If any (group of) two students choose this problem, I'm satisfied.'

In (27), there is a scalar presupposition that the speaker is less likely to be satisfied if two students choose the problem than if more than two do. This in turn implies that since the speaker is already satisfied if only two students choose the problem, she will in all likelihood be even more satisfied if three students choose it. (28) on the other hand allows no inferences about what happens if three students choose the problem. It's rather a statement about (arbitrary) pairs of students. It could be used for instance by a professor who assigns a set of homeworks from which each student has to choose one, but who hopes that one particular problem is chosen by two students (it doesn't matter which ones),

so that they can compare answers.<sup>5</sup> If any two students choose this problem, the professor is satisfied. If more than two students do, she may not be satisfied, for instance because she wants the other students to work on something else. Rather than giving rise to a scalar presupposition, the *wh*-NPI in (28) serves to indicate that it is immaterial which two students choose the problem.

A third difference between *even*-NPIs and *wh*-NPIs is the fact that measure nouns and so-called minimizers can be used in the former, but not the latter. Minimizers are (usually idiomatic) NPIs referring to minimal quantities which are the symbolic lowest point of some scale. Typical examples in English are *a red cent* or *(to drink) a drop*.

- (29) Ik denk niet dat dit ook maar een minuut zal duren.  
I think not that this even<sub>NPI</sub> a minute will last  
'I don't think this will even last a minute.'
- (30) \*Ik denk niet dat dit welke minuut dan ook zal duren.  
I think not that this which minute PRT PRT will last
- (31) Niemand heeft ook maar een rode cent verdiend.  
no one has even<sub>NPI</sub> a red cent earned  
'No one has earned even a red cent.'
- (32) \*Niemand heeft welke rode cent dan ook verdiend.  
no one has which read cent PRT PRT earned

This contrast can be understood if we assume that *even*-NPIs are inherently scalar, but *wh*-NPIs aren't. Measure nouns are ranked along a scale (e.g. second, minute, hour, day, etc.) and minimizers inherently refer to the minimal point on a scale. Both are therefore compatible with the use of a scalar focus item like *ook maar*. *Wh*-NPIs on the other hand behave just like strong determiners which also cannot be used with measure phrases and minimizers:

- (33) \*It lasted that/every minute.  
(34) \*He didn't earn that/every red cent.

We have identified three empirical differences between *even*-NPIs and *wh*-NPIs which together show that the former are both scalar and focus-sensitive, but the latter are neither. A L&H-style semantics is obviously appropriate for *even*-NPIs, because they explicitly contain a particle meaning 'even'. But what sort of semantics can we adopt for *wh*-NPIs? The only non-scalar semantics for NPIs available in the literature -- or at least the only one that is worked out in great detail and supported by a wealth of data -- is the one proposed by K&L for English *any*. We have seen that *wh*-NPIs have the same distribution as *any*: they occur not only in all the standard environments that license NPIs (comparatives, questions, conditionals, etc.), but also in free-choice contexts. K&L's analysis explains why *wh*-NPIs are not sensitive to focus and why they carry no scalar presuppositions, because widening and strengthening are operations that do not involve

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<sup>5</sup>I am grateful to Paul Portner for suggesting this context to me.

scales or depend on focus. This analysis can also explain the incompatibility of *wh*-NPIs with measure nouns and minimizers. Since minimizers like *red cent* are idiomatic expressions which do not literally refer to anything but only in a metaphorical sense stand for the minimal point on a scale, it doesn't make any sense to talk about widening their denotation. Similarly, a measure noun like *minute* does not refer to a set of entities and therefore widening its denotation is not a meaningful operation. Minutes and 'red cents' are simply not among the entities in our domain of discourse. These considerations makes it at least plausible that *wh*-NPIs are amenable to a K&L-style analysis.

The arguments I've given in favor of a K&L-semantics for *wh*-NPIs have for the most part been negative ones: *wh*-NPIs are not focus-sensitive and not scalar. There also is a more positive, albeit somewhat speculative, reason to adopt K&L's in terms of widening and strengthening for *wh*-NPIs. In an important typological study of indefinite pronouns, Haspelmath (1993) shows that *wh*-NPIs of this type can be found in a wide range of languages. He argues that they are derived historically from concessive conditional clauses like that in (35a) by a grammaticalization process in which the conditional clause is first reduced to an NP plus particle (see the intermediate step (35b)) and then becomes an argument of the main clause (see (35c)).

- (35) a. Niemand wil met een student spreken, welke student het ook is.  
no one wants with a student talk, which student it PRT PRT is.  
'No one wants to talk to a student, whichever student it is.'
- b. Niemand wil spreken met een student, welke student dan ook.  
no one wants talk with a student, which student PRT PRT  
'No one wants to talk with a student, no matter which student.'
- c. Niemand wil spreken met welke student dan ook.  
no one wants talk with which student PRT PRT  
'No one want to talk with any student.'

Whatever the details of this grammaticalization process, it is tempting to take the history of this construction as a clue to its interpretation. What then is the semantics of concessive conditionals, which are the source construction of *wh*-NPIs? Intuitively what the concessive clause in (35a) does is to leave the choice of the student referred to in the main clause up to the hearer. The meaning of the sentence is something like the following: "You, the hearer, may pick a student *x*; whatever choice you make, the proposition 'No one wants to talk to *x*' will be true." Because it indicates that the choice of student is left up to the hearer, the concessive clause has the effect of strengthening the proposition expressed by the main clause. In other words, the function of the concessive clause is to strengthen the main clause by widening the potential denotation of the noun *student*. From a historical perspective, it seems then that the sort of semantics that K&L have proposed for *any* is appropriate for *wh*-NPIs in Dutch. I admit though that this suggestion is based on somewhat circumstantial evidence. If *wh*-indefinites have the historic source suggested by Haspelmath, this does not necessarily mean that they have the same semantic function as concessive conditionals, for the simple reason that the semantics of expressions and constructions may change over time. Moreover, the precise semantics of concessive

conditionals is still largely uncharted territory. Nevertheless, I think K&L's widening-and-strengthening analysis is the most plausible candidate available for *wh*-NPIs. I leave it for further research to find additional empirical support for this claim.

The discussion in this paper has so far been about *even*-NPIs and *wh*-NPIs in Dutch, although the theories adopted to explain their behavior were originally proposed as accounts of English *any*. This raises the question whether we can use the tests developed in this section to help us decide between K&L's and L&H's proposal as the most appropriate account of *any*. I will show that *any* is insensitive to focus and non-scalar, making K&L's theory the most plausible one.

## 5. Another Look at *Any*

Let's consider the first test, the effect of the placement of focus. Compare (36a,b) with (37a,b).

- (36) a. No one has read ANY comic books.  
 b. No one has read any COMIC BOOKS.  
 (37) a. No one has read even ONE comic book.  
 b. No one has read even a COMIC BOOK.

In (37a,b) the scalar focus particle *even* associates with focus, and as a result the two sentences presuppose different scales and generate different scalar presuppositions. For instance, if in a certain context the salient reading materials are comic books and novels, then (37b) presupposes that "No one read a comic book" is less likely than "No one read a novel". By contrast, (36b) carries no scalar presuppositions. This sentence is consistent with a situation in which people are more likely to read novels than comic books. The function of focus in this sentence is merely contrastive. The conclusion we can draw from this is that *any* is not focus-sensitive in the way that *even* is.

Turning to the second test -- conditionals with numerals greater than *one* -- we see that *any* does not carry the scalar presuppositions characteristic for *even*. Just like (28), (38) can be used without any implications about what happens if more than two students choose this problem. The sentence could for instance be continued with: "but no more than two should choose it." *Any* merely serves to indicate that it doesn't matter which two students choose the problem.<sup>6</sup>

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<sup>6</sup>Carlson (1981) claims that NPI *any* (as opposed to free choice *any*) may not occur prior to numerals, "at least in the more formal registers of the standard dialect" (p. 9). He contrasts the grammatical (i), which is an example of free choice *any* plus a numeral, with (ii), which he marks as "dial."

i. Any three men could move this stone.

ii. Did any five waiters just walk in?

Native speakers I have consulted do not have a problem with (38), however, where we clearly have an instance of NPI *any*. It seems then that Carlson's claim is too strong, also in the light of the following example, provided to me by Barbara Partee:

iii. I've never seen any two linguists who agree on anything.

- (38) If any two students choose this problem, I'm satisfied.

The third criterion – compatibility with measure nouns and minimizers -- gives the same result as the previous two. The examples (39) and (40) show that *any* cannot be used with measure nouns and minimizers and thus behaves like the Dutch *wh*-NPIs:<sup>7</sup>

- (39) \*I don't think this will last any minute.  
 (40) \*No one has earned any red cent.

These examples should be contrasted with their counterparts with *even* plus an indefinite determiner:

- (41) I don't think this will last even a MINUTE/even ONE minute.  
 (42) No one has earned even a RED CENT/even ONE red cent.

On the basis of these three tests, we may conclude that *any* can not be analyzed as an indefinite which incorporates the meaning of *even*, as L&H have proposed. *Any* is neither focus-sensitive nor scalar. This leaves K&L's proposal as offering the most plausible unified semantics for *any*.

Despite the fact that *any* and the Dutch *wh*-NPIs pattern alike on our three tests, there also is an important difference between the two. This will be discussed in section 7. But first I will turn to a fourth difference between *even*-NPIs and *wh*-NPIs in Dutch which was already alluded to earlier.

## 6. Free-choice Uses

Whereas *wh*-NPIs can be used in free-choice statements (see (17) and (18)), *even*-NPIs can't. In this respect also, English *any* patterns with the *wh*-NPIs.

- (43) \*Je mag trouwen met ook maar iemand.  
 you may marry with even<sub>NPI</sub> some/anybody  
 (44) \*Kasparov kan winnen van ook maar één tegenstander.  
 Kasparov can win against even<sub>NPI</sub> one opponent  
 (45) You may marry anyone.  
 (46) Kasparov can win against any opponent.

It is tempting to try to explain these facts also in terms of a K&L-style versus a L&H- style semantics. I am somewhat hesitant to do so, however, because cross-linguistically it appears to be possible for *even*-NPIs to have free-choice readings. Lahiri (1995) gives

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<sup>7</sup>Note that the expression *any minute* can be used in sentences like *He can come any minute*. Here however the noun *minute* is not used as a measure expression, but denotes individual points in time (cf. *He can come any moment*). No scale is involved in such cases.

examples of free-choice readings of *even*-NPIs in Hindi, involving the focus particle *bhii* (see (47)). The analogue of this sentence in Dutch, (48), is ungrammatical:

- (47) koi bhii ulluu cuuhoN-kaa Sikaar karta hai  
 an even owl mice hunts  
 `Any owl hunts mice'  
 (48) \*Ook maar een uil jaagt op muizen.  
 even<sub>NPI</sub> an owl hunts at mice  
 (49) Zelfs een uil jaagt op muizen.  
 even an owl hunts at mice  
 `Even an owl hunts mice'

The reason why (48) is out is that *ook maar*, the NPI form of *even*, is used in an environment that doesn't license NPIs. When we replace *ook maar* with its non-NPI counterpart *zelfs*, as in (49), the sentence is fine. The problem is, however, that just like its English translation this sentence does not mean the same thing as *Any owl hunts mice*. I don't know what could explain this difference between Hindi on the one hand and Dutch and English on the other. In any case, the mechanism which Lahiri proposes to derive this interpretation in Hindi, which involves constructing a scale of contextually specified properties,<sup>8</sup> must be assumed not to be universally available. I will leave this issue for further research.

## 7. Non-Emphatic *Any*

The conclusion that *any* is not equivalent to an indefinite plus *even* was in fact already reached in a paper by Heim (1984), but on the basis of different data. Heim points out that *any* can be used to express an accidental generalization, but NPIs whose semantics incorporates the meaning of *even* can't. The difference between an accidental generalization and a non-accidental one can be illustrated by the following examples (see also Kratzer 1989):

- (50) a. Everyone who ate anything got sick.  
 b. Everyone who ate anything was actually wearing blue jeans.

(50a) can be used to express a non-accidental generalization, because it is possible that there is a causal connection between eating something and getting sick. Under normal circumstances, (50b) however will be an accidental generalization because a causal connection between eating something and wearing blue jeans is very unlikely. Heim notes that certain NPIs, in particular what I've referred to as minimizers, cannot be used in statements expressing such accidental generalizations:

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<sup>8</sup>L&H seem to assume a very similar sort of mechanism when they talk about 'kind scales'. They paraphrase *Any owl hunts mice* as *Even the weakest owl hunts mice*.

- (51) a. Everyone who ate a single bite got sick.  
 b. #Everyone who ate a single bite was actually wearing blue jeans.

(51b) is odd, because it suggests that there is non-accidental link between eating something and wearing blue jeans. Heim argues that what makes minimizers like *a single bite* incompatible with accidental generalizations is the fact that -- unlike *any*, but just like our *even*-NPIs -- they are semantically equivalent to expressions containing the word *even* (following Schmerling 1971). The use of *a single bite* in (51a), for instance, presupposes that there is a scale ranking amounts of food with a single bite being the element which is least likely to make the open proposition "everyone who ate *x* got sick" true. In a world such as ours where the more one eats of spoiled food, the more likely one is to get sick, it's easy to imagine a situation where this presupposition is satisfied. However, it's much harder to imagine a situation where eating more of something makes one more likely to be wearing blue jeans, which explains the oddness of (51b). Note that Heim's proposal that minimizers incorporate the semantics of *even* but that *any* doesn't, squares well with our observation that *any* can't be combined with a minimizer.

Turning to Dutch, we find Heim's observation confirmed. NPIs with *ook maar* cannot be used to express accidental generalizations, not only when they involve a minimizer, as in (52), but also when *ook maar* is prefixed to a non-scalar indefinite like *iets* ('something/anything'), as in (53). (*Iets* is a polarity-neutral item which has no direct analogue in English, which is why I've glossed it as 'something/anything'.)

- (52) a. Iedereen die ook maar een hap gegeten had werd ziek.  
 everyone who even<sub>NPI</sub> a bite eaten had got sick  
 'Everyone who ate even a bite got sick.'  
 b. #Iedereen die ook maar een hap gegeten had droeg een spijkerbroek.  
 everyone who even<sub>NPI</sub> a bite eaten had wore a blue-jeans  
 'Everyone who ate even a bite was wearing blue jeans.'
- (53) a. Iedereen die ook maar iets gegeten had werd ziek.  
 everyone who even<sub>NPI</sub> something/anything eaten had got sick  
 'Everyone who ate anything got sick.'  
 b. #Iedereen die ook maar iets gegeten had droeg een spijkerbroek.  
 everyone who even<sub>NPI</sub> something/anything eaten had wore a blue-jeans  
 'Everyone who ate anything was wearing blue jeans.'

However, the same is true for *wh*-NPIs, which I have argued to be non-scalar:

- (54) a. Iedereen die wat dan ook gegeten had werd ziek.  
 everyone who what PRT PRT eaten had got sick  
 'Everyone who ate anything got sick.'  
 b. #Iedereen die wat dan ook gegeten had droeg een spijkerbroek.  
 everyone who what PRT PRT eaten had wore a blue-jeans  
 'Everyone who ate anything was wearing blue jeans.'

It seems then that having a semantics which incorporates the meaning of *even* is not the reason, or at least not the only reason, why certain NPIs can't be used in sentences expressing accidental generalizations, because in this respect, *even*-NPIs and *wh*-NPIs in Dutch behave alike and are both different from English *any*. What sets *any* apart from both *even*-NPIs and *wh*-NPIs? One important property that makes *any* different is the fact that it can be used non-emphatically. Both *even*-NPIs and *wh*-NPIs are obligatorily stressed; in *even*-NPIs the stress marks the location of the focus that the scalar focus particle associates with, while in *wh*-NPIs it is the *wh*-word that is always stressed. English *any* can be completely unstressed, however. I will call *even*-NPIs and *wh*-NPIs, as well as *any* when it is stressed, emphatic NPIs, and unstressed *any* a non-emphatic NPI. That stress is the relevant factor can be seen from the fact that the accidental generalization (50b) becomes strange when *any* is stressed. Also, in Dutch the most straightforward translation of (50b) is (55), where the unstressed indefinite pronoun *iets* is used where English has *anything*.

- (55) Iedereen die iets gegeten had droeg een spijkerbroek.  
 everyone who something/anything eaten had wore a blue-jeans  
 'Everyone who ate something/anything was wearing blue jeans.'

What I would like to suggest is that non-emphatic *any* has the semantics of a plain indefinite determiner (in English, *a(n)* or  $\emptyset$ ), the only difference being that in its distribution *any* is restricted to downward entailing environments. Some support for this idea comes from the behavior of free-choice *any*. Unlike NPI *any*, free-choice *any* must always receive stress. As pointed out by several authors -- most recently Dayal (1995) -- free-choice *any* can only be used in non-accidental generalizations like (56a), but not in accidental ones such as (56b), unlike ordinary quantifiers like *every* (see (56c)).

- (56) a. Anyone who tasted the chili got sick.  
 b. #Anyone who tasted the chili was wearing blue jeans.  
 c. Everyone who tasted the chili was wearing blue jeans.

More importantly, the arguments that K&L give for their analysis of *any* in terms of widening and strengthening only seem to apply to emphatic *any*. When we look at examples of non-emphatic *any* it's very hard to discern any widening or strengthening effect. For instance, I don't think that there is any semantic or pragmatic difference between a yes/no question with an unstressed *any* and one with an unstressed *some*, such as (57a) and (b). The emphatic *any* in (57c) does have the widening and strengthening effect predicted by K&L; the use of the emphatic *any* indicates that quantities or kinds of beverages that normally wouldn't count, are now included.<sup>9</sup>

- (57) a. Did he DRINK anything?  
 b. Did he DRINK something?

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<sup>9</sup>It has often been claimed that the occurrence of an NPI in a question biases it towards a negative answer. As Heim observes, this is not true for questions containing a non-emphatic *any*, such as (57a).

## c. Did he drink ANYthing?

The most direct translation of either (57a) or (57b) in Dutch is with the polarity-neutral indefinite pronoun *iets* (*Heeft hij iets gedronken?*). (57c) on the other hand is rendered using either an *even*-NPI (*Heeft hij ook maar iets gedronken?*) or a *wh*-NPI (*Heeft hij wat dan ook gedronken?*). Again, this suggests that non-emphatic *any* causes no widening or strengthening and simply has the semantics of a plain indefinite. One immediate consequence of this would be that the restrictions on the distribution of non-emphatic *any* can not be predicted on the basis of its semantics. Whether this somewhat pessimistic conclusion is indeed warranted remains to be seen. Another open question is whether the opposition between emphatic and non-emphatic NPIs can account for the fact that the latter, but not the former can be used in sentences expressing accidental generalizations. Although Heim has suggested a plausible explanation of this fact for the case of *even*-NPIs, it is unclear how this can carry over to the non-scalar *wh*-NPIs.

The main point I've tried to convey in this paper is that in the area of negative polarity there is quite a bit of, often subtle, variation. No single approach is likely to be correct for all NPIs. Rather than drawing conclusions about the entire class of NPIs on the basis of a few cases, we should carefully investigate the detailed properties of each individual item.

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