Chapter 14

If size ever matters, let's compare

Friedrich Neubarth[a,b]
[a]Austrian Research Institute for Artificial Intelligence (OFAI) [b]University of Vienna

Originally intended as a manifest allusion to the title of this book, I selected comparatives in the context of negative polarity items (NPIs) as the guiding theme of this paper. It is well understood why weak NPIs are compatible with the comparison standard, but two other facts have escaped linguists' attention. Firstly, the items in question always receive an interpretation that is characteristic for universals (even *ever* in English, generally taken to be a genuine existential NPI); and strong NPIs are totally unacceptable. Trying to establish an analysis of weak NPIs in terms of a Hamblin-style semantics (not unprecedented in the literature), opens an interesting path and seems feasible, although many details need to be worked out further. The second issue, infelicitous strong NPIs in comparatives, can well be aligned to the fact that negation itself must not occur in such a context, since the meaning of the comparative would be undefined then. Finally, contemplating sub-trigging cases of weak NPIs in terms of Hamblin-sets opens up further space for such a trait, and presumably offers a better explanation of what actually goes wrong when weak NPIs are not licensed properly.

1 Introduction

Initially, it seemed a bit tricky to find anything that would justify the participation in a book project dedicated to the notion of size in linguistic theory, when having basically focused on polarity items (PI) in linguistic work. But then, the idea occurred to me that I could refer to size as a dimension in the object language, steering the discussion towards comparatives, which are quite an interesting environment in the context of negative polarity items (NPI).

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Still, I searched for more to say rather than replicating my not all too seminal analysis of weak NPIs with universal force in the standard of comparison. This in itself is puzzling and provides us good insights about the nature of NPIs. Fortunately, I stumbled over the long-known fact that comparatives, while being provident licensors for weak NPIs, seem to be in conflict with negation, on a par with strong NPIs. But, no rule without exception – and these exceptions bear some analogy to sub-trigging cases where weak NPIs apparently live well without overt or covert licensors, the only thing that has to obtain is contingency. Only within a greater context of phenomena it becomes really worthwhile to search for better answers to long-pending questions.

However, the issue at the core of all this is actually the size of the set of potential referents. That size is at stake was formulated in Kadmon & Landman (1993) who reported the effect of widening induced by weak NPIs (plus strengthening). Both terms were re-engineered on various occasions by Chierchia (2004, 2013). Alternatively, Krifka (1995) follows a different trait. On his account, weak NPIs such as *any* in English denote the entirety of entities that comply with the properties defined by the noun (phrase). Super-size – without limits! This particular property can be made responsible for the particular behavior of so-called weak NPIs. Size matters, indeed.

2 Some remarks on NPIs

To my knowledge, the term NPI was coined by Klima (1964) and referred to the weak NPI *any* that was related to its alleged positive polarity item (PPI) counterpart *some* by a set of transformational rules. That this relation was not at all warranted has been shown by Lakoff (1969): Questions are a grammatical context that licenses both items equally well (e.g. "who wants {any/some} beans?"). The only difference that can be detected is that the PPI *some* triggers an existential presupposition, whereas the NPI *any* definitely does not. It can be interpreted neutrally (in the well known sense that it renders total indifference towards which beans) or with a negative bias when focussed, expressing the expectation of a negative answer. It is important to note that this bias is not obligatory. Regarding the PPI *some*, I still contend that it is an indefinite carrying along a presupposition of existence (see Neubarth 2006), hence its resistance to be in the scope of negation, unless negation is cancelled out. Definitely, it is not a counterpart to NPI *any* in any way.

The story is well known, but I need to rehearse a few details that are crucial to the analysis I want to establish later. Ladusaw (1979) was the first to note that entailment properties of the semantic context play a crucial role, while a few years

later Linebarger (1987) claimed that (syntactic) negation plus pragmatic factors akin to the bias mentioned before are responsible for licensing NPIs. What she overlooked is that NPIs do not form a uniform class. While previous analyses considered weak NPIs such as *any*, they did not differentiate them from strong NPIs, such as *a single* N or *budge an inch*. From an empirical perspective it is clear that strong NPIs create a bias in many cases, while weak NPIs may well have a neutral interpretation in environments that do not involve negation. It was Heim (1984) who noticed this difference for the first time, and Zwarts (1993, 1998) came up with an analysis in terms of downward-entailing (DE) vs. anti-additive environments. His work was also responsible for establishing the distinction between strong and weak NPIs, now generally used in the literature. Taking into consideration the over three decades' worth of existing investigation, ideas, and disputes, I will try to lay out what I believe to be the relevant properties of these two types of NPIs.

2.1 Strong NPIs

NPIs of this class always have a quantified NP that can be interpreted as a minimal quantity (e.g., *so much as a single* N), and most often they are equipped with (at least) one focus-attracting particle (*even a single* N). A few of them are indeed idiomatic predicates (e.g., *budge an inch*). Consider the example from Heim (1984: 104):

(1) Every restaurant that charges so much as a dime for iceberg lettuce {ought to be closed down/$^{??}$actually has four stars in the handbook}.

The restriction of universals is clearly a DE environment. By virtue of that, all propositions with members on a scale consisting of alternatives to the minimal quantity expressed by *a dime* will be entailed by the sentence given. These may be higher numbers than just one, or more valuable monetary units. In other words, the proposition with the minimal quantity yields the strongest assertion. If the context for the NPI were not DE, the assertion would be the weakest possible, and – frame it as you wish – it is clear that such a sentence would be unacceptable. Thus, having established the need for a DE context (as proposed by Ladusaw 1979 and others), the question is still pending why the two examples (merged into one) are different. The second version, where the universal subject DP (or rather QP) is in a non-modal, indicative environment is clearly unacceptable.

The rationale behind this is that it is not a minimal quantity, but actually interpreted as a minimizer. It cannot be a real quantity (albeit it has the linguistic

form of one).[1] The only way to achieve this effect is to exclude a situation where the extension of the DP in the evaluation world is not the empty set. Negation provides the right context, weak DE quantifiers such as *few* clearly do not, in fact they explicitly assert that the extension has "a few" members. When dealing with the restriction of universal quantifiers or antecedents of conditionals it is not clear whether there is an extension in the real world. As Heim already noticed, adding an appropriate modal to the sentence already does the job – prohibiting an inference to the real world.

While the acceptable version of (1) could be paraphrased as some kind of threat, the following example clearly cannot, indicating that it is just the mere ban on extension in the evaluation world induced by the minimizer, rather than some pragmatic devices, as suggested by Linebarger (1987). Consider the following example in German:

(2) Wenn du auch nur ein einziges Stück von dieser Torte kostest,
if you even a single piece of this tart try,
{wirst / würdest} du sehen, dass sie irgendwie doch gut
{will-IND / will-COND} you see, that it somehow nevertheless good
schmeckt.
tastes.
'If you tried even a single piece of this tart, you would see that nevertheless it tastes somehow good.'

To be on the safe side I used the hypothetical conditional for the English translation. In German, the use of the subjunctive is not obligatory. But notice that the conditional in both languages is not counter-factual. What is more interesting is first that we have an NPI with a focus-attracting particle, and second that in German what is expressed by *even* in English actually involves two particles: additive *auch* ('also') and exclusive *nur* ('only').[2] In English, the role of the particle *even* is marginal (otherwise we would not find strong NPIs without it). Basically, it fosters the scalar reading by presupposing a scale of likelyhood, where the element in focus is at the bottom of that scale (see Lee & Horn 1994). This likelyhood scale matches the scale of entailments in DE environments, a crucial circumstance. The German (or Italian) case is striking, though, since neither of the particles is scalar in nature.

[1] Manfred Krifka (p.c.) once pointed out to me that this property could well be compared to the epsilon in infinitesimal calculus: an arbitrarily small positive quantity. His definition (in Krifka 1995) involves exhaustivity.

[2] The same is true for Italian (see Guerzoni 2003).

Starting with the "inner" particle *nur* ('only'), its semantics is that it presupposes the truth of the proposition applied to the element in focus and asserts that for all alternatives (ordered or not) the proposition will be false (Krifka 1998, Wagner 2005). When in the scope of negation, the implicit universal operator (over alternatives) is negated and the interpretation of exclusiveness is explicitly denied. In our case, as part of an NPI, *nur* presupposes the truth of the minimal element and asserts the falsity of all other elements. This is definitely not what we want for *nur* as part of an NPI. Remember, that the scalar reading is induced by virtue of the minimal element being interpreted as a minimizer alone, and the particles just reinforce that interpretation.

The second, additive particle has almost contrary properties: *auch* "expresses that the predication holds for at least one alternative of the expression in focus" (Krifka 1998: 111). So, in fact it is the additive particle that reinforces the scalar interpretation. But what are the alternatives? Following an idea proposed by Manfred Krifka (p.c., at SemNet 2007 in Berlin), the alternatives are expressions of the form "*nur* X" where X stands for the complex of a (numerical) quantifier Q and its restrictor, the NP part, whereas Q can have any value different from one (the minimal value). Due to the mandatory DE-context, all these alternatives are entailed by the minimizer, as before, whereas likelyhood coincides with entailment.

The interplay of the two particles is structured as follows: the higher particle *auch* enforces presupposed alternatives (that need to be true), but it shields the expression headed by the lower particle from the effect of negation, which would target the universal over its alternatives.[3] Rather, the lower particle *nur* establishes a scheme that defines the alternatives of the higher particle, i.e. "*nur* X", where alternatives vary over X (or better, the quantifier contained in it). Intuitively, it is clear what happens: the meaning of *nur* only applies within its domain, the focus or one of the alternatives of *auch*. Outside, on a higher structural level of semantic interpretation, neither the presupposition, nor the universal over alternatives are visible. Rather, a higher scoping negation would target the indefinite within. I admit, this is a mere sketch, more work would be needed to specify out the details in a cleaner manner.

Krifka's (1995) proposal for strong NPIs involves an emphatic assertion operator. These sketchy ideas are not only well compatible with his approach, they actually derive from it. The scalar nature of strong NPIs is sometimes triggered by lexical aspects (e.g., *a dime*), in other cases by focus attracting particles, where

[3] I am not sure if this could be regarded as a case of intervention as observed with quantifying expressions.

focus makes (quantificational) alternatives "visible". Krifka is very cautious about identifying the causality of the particular behavior of strong NPIs. Clearly, they convey an "extreme" meaning w.r.t. their position in the induced scale. He also notes that Zwarts's (1993) notion of anti-additiveness is too strict, given that examples with "extreme" items can license strong NPIs without fulfilling the requirement of being anti-additive in a strict sense (e.g., *Hardly **anyone** lifted a **finger** to help me.*, Krifka 1995). Such examples challenge the universal claim for a ban on extensional instantiation.[4]

Another issue with licensing of strong NPIs in the standard of comparatives is, again, the status of its context. These contexts are at least Strawson anti-additive, which would render them licensed, under standard assumptions. Since they are not licensed, we need to turn our attention more to the semantic properties of particular items rather than searching for the right definitions of the contexts that would license a particular item.[5]

To sum up, strong NPIs require two things: first, a DE context, and second, that they have empty extension, given their interpretation as minimizers. This formulation is similar to Zwarts's (1998) characterization that strong NPIs demand an anti-additive context, but it also accounts for the observations in Heim (1984). This will be essential for an explanation why strong NPIs are not licensed in the context of comparatives.

2.2 Weak NPIs

This type of NPI differs from strong NPIs, as can be illustrated by the mere fact that NPI-*any* is often discerned from a free-choice item (FCI) *any*. Horn (2000) undertakes a comprehensive survey about which authors have lent themselves to a univocal existentialist or universalist approach, and which have adopted lexical ambiguity. While I would object to the last option on conceptual grounds, the data indeed oscillates between a quasi-existential and a quasi-universal interpretation. In Neubarth (2017) I have expressed my unhappiness about this alleged bifurcation of interpretations and shown that in the context of comparatives the

[4] As one reviewer pointed out, this situation seems close to what Giannakidou (2007) identified as the property of an antiveridical operator – to prevent extension in a world of evaluation. It is not fully clear to me whether her notion of antiveridicality does the job. Furthermore it is doubtful whether we need to categorize the context in such a way, rather than focusing on the semantic properties and the interpretation of the items in question.

[5] Gajewski (2010) remarks that Strawson entailment relations are not at issue with licensing NPIs. However, he discusses only superlatives, leaving open the question whether his findings can be transferred to comparatives as well.

NPI *ever*, generally taken for existential, also receives a quasi-universal interpretation. My conclusion then was that the distinction between existential and universal should not be applied at all to weak NPIs.

Quoting from there, the most sensible meaning of weak NPIs is "that they actually denote the set of all possible referents that fulfil the properties denoted by the noun phrase (including cardinally modified pluralities, such as *any two X*), or, in case of *ever*, the set of all relevant (accessible) situations/times." This is reminiscent of a Hamblin-style semantics (Hamblin 1973) and would explain why we never get effects of existential closure, or in the sense of Reinhart (1997) the application of a choice function that would determine the reference of an (indefinite) nominal expression.

What I still take to be essential from there is that under the view that lexical items have just one meaning (save polysemy, rarely found with grammatical lexemes) it cannot be a "special" property of these items to denote either existiential, quasi-universal or free-choice meanings, but rather the other way round. Elaborating a bit further, these items just block what normally happens when we encounter a non-definite nominal. Therefore its interpretation can simulate both, a universal or an existential interpretation. Conditionals are a classic example are – in the case at hand with two different continuations:[6]

(3) If she can solve any of these three problems
  a. she must be a genius.
  b. she has good chances to pass the test.

The partitive is on purpose here, it excludes an interpretation where widening takes place, problematic for Kadmon & Landman (1993), but presumably amenable. In (3a) we get a quasi-universal interpretation, however, mediated through the FCI *any* (in the sense of 'no matter which'), whereas in (3b) there is a quasi-existential interpretation at stake, still affected by the 'no matter which' premise, but it seems sufficient to solve one problem in order to fulfill the antecedent of the conditional. Under a closer look, we see that the two uses of *any* are tied to different scales of expectation, targeting likelihood. In the first variant, the full set is the domain of reference and the continuation enforces a low

[6]One reviewer comments that this example is ambiguous between a free-choice and an existential reading due to the modal *can*. This is correct, and exactly the case: the modal enables both readings. However, what the example really shows is that the interpretation switches between an existential or a free choice interpretation, sensitive to the context which determines direction of a scale of likelihood (or expectation). I would argue that the meaning of *any* does not change, but its interpretation does, according to context.

expectation to solve all three problems. The reverse is true for the second variant, for which there is indifference about the choice, but any choice fulfills the requirements, cf. Dayal (2004). Under closer scrutiny, we see that it is barely the responsibility of the weak NPI to trigger those two interpretations. Rather, the context determines whether one is sufficient, or *any of these three problems* is interpreted as covering the entire set.

Setting those things aside for a bit, let us move on to investigate the perennial question what makes weak NPIs infelicitous in non-negative, declarative contexts? Krifka (1995), in my opinion, has provided the most intuitive definition of weak NPIs: an expression of the form *any X* denotes an entity out of the set of all entities that fulfill the property X, but deliberately in the most unspecific way. This definition implies that context is intentionally not revealed or provided. Logically, a proposition p containing such an expression is weaker than any other proposition containing a more specific, alternative expression. Krifka proposes a pragmatic principle of scalar assertion, where *scalar* refers to ordered strength. His argument is that for every potential alternative proposition p' being stronger than p, this proposition must not be true (a line of reasoning that Chierchia 2004 continues).

In the case that stronger propositions can be true, there is no direct contradiction, but the assertion becomes undefined. In a DE context, where the direction of entailment is reversed and the most general expressions yield the strongest propositions, all propositions containing alternatives become weaker than p. Following Krifka, we can safely deduce that DE contexts provide an environment for weak NPIs where they can contribute to interpretable (=defined) assertions. When a weak NPI such as *any* has focus, the alternatives become explicitly visible and propositions p' containing them need to be false by pragmatic principles. Even more so, a felicitous interpretation depends on scale reversal, in order to provide a stronger (or the strongest) statement while widening the domain of reference to its maximum. In this regard, the present analysis is compatible with that of Kadmon & Landman (1993), who also stress the effect of widening the domain of reference, even though they do not refer to DE as a condition for *any* or provide an independent explanation for the infelicity of certain contexts.

Dayal (1998) goes as far as to propose a universal operator that leads to a presupposition failure when occurring in non-subtrigged epistemic contexts. In order to remedy quasi-existential interpretations, but also to ensure that FCI *any* is licensed by a possibility operator, and not by necessity operators (without further modification). This requirement of indeterminacy, "as a grammatical constraint against the extension of the relevant property (the intersection of the nominal and the verbal properties) being the same in every accessible world" (Dayal 2009:

237) was refurbished as "fluctuation" (Dayal 2013). There she formulates a "viability constraint on alternatives", aligning her analysis to Chierchia's (2011) account of NPIs. It provides a more independent grounding within a semantics dealing with alternatives. The connective idea behind this is that FCI *any*, while being an indefinite, hooks up to a universal operator. In her most recent account based on "viability", this universal operator arises as a (FCI) implicature that is enforced by negating all exhaustified sub-domain alternatives.

The discussion revolves about the question how to achieve the Janus-faced interpretation and in the case of a quasi-existential interpretation how to ensure the property of indeterminacy. Other accounts on NPIs make more direct use of a semantics based on the work of Hamblin (1973) (see Ramchand 1997, Kratzer & Shimoyama 2002, Kratzer 2005, Novel & Romero 2009 among others, especially substantial elaborations on the nature of free-choice effects in Fox 2007, Chierchia 2013). The meaning of an indefinite is not quantificational per se, but actually the set of alternatives (contextually available referents). This set percolates up, potentially to the propositional level, but may also be closed off by an appropriate operator, actually the first one occurring during the compositional procedure. This still does not explain our apparent ambiguity, but at least it explains why NPIs keep licensed in cases where a higher operator might reverse the scale again (e.g., double negation).

While a formal elaboration is not yet complete, I have outlined that:

i. indefinite expressions are analyzed as Hamblin-sets,

ii. weak NPIs (also in their guise as free-choice items) generally resist whatever means of "existential closure" – that sets them apart from common indefinite expressions,

iii. the quasi-existential interpretation comes about when existential closure is "imported" from somewhere else, while keeping truth conditions on the whole set intact,

iv. the quasi-universal reading receives a natural explanation since it reflects entire access to the members of a Hamblin-set.[7]

[7]One could object that Hamblin sets are generally disjunctively combined, resulting in existential meanings. (Thanks to a reviewer to point out this issue). Nevertheless, I consider this not at the core of a (quasi-)Hamblin semantics. Whether an indefinite receives an existential meaning depends on the context (and most often the context provides existential closure). In that respect, free-choice is particularly intersting, since free-choice is neither genuinely universal, nor existential in the common sense, but either quasi-existential ("the one that you choose") or (modalized) quasi-universal ("of the whole set, feel free to choose (any) one").

A bit more needs to be said about items ii.–iii.: definitely, *any*+NP expressions, and their kin, are different from plain indefinite expressions, and while they might share a few intersections with those for example in generically interpreted contexts (cf. Kadmon & Landman 1993), they cannot be subject to existential closure, or binding by a choice-function. Whatever you take, the Hamblin-set prevails. Unfortunately, this remains a mere stipulation, not deduced by other criteria. Regarding the quasi-existential interpretation, I reckon that it comes about either when we have negation involved, but this is a bit of an illusion: de facto the interpretation is non-existential. Or with downward entailing quantifiers (e.g., *Few voters of the president have read any book.*), where the quantifier *few* provides a context where the availability of the whole set is not violating pragmatic principles of assertion in the sense of Krifka (1995). Nevertheless, it is interesting to observe that in German the correspondent to the given example involves the same construction that has been discussed with strong NPIs:

(4) Wenige Wähler haben auch nur irgendein Buch gelesen.
few voters have any book read.
'Few voters have read any book.'

Recall that the *nur* particle confines the reference to the item in scope, by its presupposition, while negating the truth of the alternatives. On the other hand, the higher additive particle *auch* reinforces alternatives and shields the lower particle from percolating its presupposition (which needs to be treated in a more dynamic way), but also shields the assertion from reversing its truth value under negation. My tentative formulation was that this encapsulation takes place by enacting a higher order treatment on alternatives, where the *nur* ('only') DP expression serves as a scheme that is not evaluated outside the scope of the higher particle. As Kratzer & Shimoyama (2002) and Kratzer (2005) point out, the contribution of *irgendein* is to make the alternatives being kept available in a way. What is striking is that before, when dealing with quantificational minimizers, which yield strong NPIs, there was no way to escape the ban on manifest extensions, while here it seems as if we have found a (partial) correspondent of English *any*, well suited for a quasi-existential interpretation.

This is the point where we have to perform some sort of looping. When the expression *irgendein Buch* is introduced, it refers to a potentially infinite set of books. In German, the particle *nur* selects one, most unspecific – and that is the loop – by virtue of being most unspecific. Then we are with Krifka (1995) and his reasoning. DE is mandatory, of course, but it is warranted. But why not a ban on non-empty extensions? I would contend that this is exactly because

there is no quantitative entailment. Any individual assignment of 'few voters' to books they might have read does not contradict the whole. In other words, the Hamblin-set gets evaluated at the level of interpretation of the quantifier 'few' that itself is exclusive towards an unspecified majority. Once this evaluation has taken place, the Hamblin-set will not be accessible at the level of proposition. Again, this would need a formal elaboration, but what I aim at here is just to push the conceptual idea of utilizing Hamblin-sets in a more general way, admittedly in a more or less naive manner. Let us move on to the main topic or this paper, NPIs in the standard of comparatives.

3 NPIs in the standard of comparatives

While comparatives are complex in general, their grammaticality is simple in NPIs. Weak NPIs are absolutely natural in the standard of comparison (and not licensed outside, of course), whereas strong NPIs are strictly ungrammatical.

3.1 Weak NPIs and comparatives

Let us leave out the latter for a moment and start with weak NPIs. Actually, as of what has been said before, it is not a miracle that they live so well there: the standard of comparison is a DE environment. What is puzzling is that the interpretation weak NPIs receive is a (quasi-)universal one, as noted by Schwarzschild & Wilkinson (2002). When representing the denotation of indefinites as Hamblin-sets that resist existential closure, they just live up to where the standard of comparison is evaluated. I want to discuss this effect with a classical account on comparatives, notwithstanding that there is much more to be said on comparatives per se.

Weak NPIs always have a universal interpretation in the comparison standard. Even *ever* that is normally taken to be confined to (quasi-)existential interpretations receives such an interpretation. Building on those findings, in Neubarth (2017), I defend a position where the distinction between existential and universal interpretations should be abandoned for these kinds of NPIs. For ease of demonstration, I will refer to von Stechow's (1984) analysis of comparatives.[8] That weak NPIs receive a universal interpretation in that context has already been noted in Stechow's paper, and also later in Schwarzschild & Wilkinson (2002), albeit just

[8]This approach has some well-known difficulties, particularly in connection with universal quantifiers. Various authors have tackled this problem, coming up with solutions that are closer or more distant from von Stechow's original proposal. See for example Schwarzschild & Wilkinson (2002), Heim (2006), Beck (2010), Fleisher (2016).

in a footnote, but rarely else. Von Stechow's assumes that the standard of comparison (the *than*-complement) determines a property of degrees one can abstract over, rendering the whole a nominal with scope, thus enabling but also reinforcing raising. One of the most appealing features of von Stechow's analysis is that it treats semantics and syntax on a par. The meaning of the comparative complement can be represented as "the(Max(P))" (von Stechow 1984: 55), where "the" stands for the Russellian definite description operator, and "Max(P)" is maximization over degrees that is defined in such a way that it is the property being true of any degree d in a world w, given that there is no other degree $d' > d$ that would be true in this world as well.

Various analyses are possible regarding weak NPIs. Pushing the Hamblin-set idea, it appears quite plausible that the maximization function of the comparative would be satisfied to evaluate over an indefinite that offers a (non-closed) Hamblin-set. This would yield a nice explanation for the quasi-universal interpretation: maximization evaluates the whole set indiscriminately, so its character as a set prevails. Later accounts on comparatives, i.e. von Stechow (1996) and Heim (2000), also build on the core insight that there is a function that goes over all alternative degrees. This extends to the equative as well, since its meaning also rests on maximization.

Notice that it might not be the DE property of comparatives that "licenses" weak NPIs of the *any X* type. If this were indeed the case, the hybrid NPI in German with a focus-attracting particle but no quantifier should equally be licensed (as in other DE contexts). However, the sentence is considerably odd:

(5) ?? Gustav ist größer als auch nur irgendeiner von seinen Kollegen.
Gustav is taller than even anyone of his colleagues
'Gustav is taller than *any* of his colleagues.'

Although the context is DE, it seems that the scalar nature of the NPI in question gets in conflict with maximization that expects an unordered, fully accessible set of alternatives to apply upon. As they represent Hamblin sets, weak NPIs provide ideal conditions for maximization.

3.2 Strong NPIs, negation and comparatives

The fact that negative expressions are not possible in the standard of comparison is well known at least since Lees (1961), among others, Ross (1980) and von Stechow (1984) commented on it, but I will mainly refer to Lechner (2002), who observed a substantial exception to the pattern that has been labeled inner island violation II (see example (7) below).

Returning to von Stechow's analysis for a moment, the incompatibility of negation and comparatives yields a straightforward explanation. Alongside Russell he remarks that it is impossible to apply the definite description operator onto an empty set, since the definite description simply does not denote then. It is crucial to bear in mind that it is not the maximization function that causes the problem here. Also, von Stechow does not classify such sentences as ungrammatical, but rather as "extremely odd". So why is the comparison standard also adverse towards DE quantifiers? Consider the following examples:

(6) a. ?? Gustav is taller than few of his colleagues.
b. Gustav is smaller than many of his colleagues.
c. Few of his colleagues are smaller than Gustav.

We are dealing with a linear scale of size here. All three sentences would mean that the size of Gustav is in the lower range of all sizes abstracted over his colleagues and him. This can be stated explicitly as in (6b), or implicitly as in (6c), which asserts that the number of colleagues with a size smaller than that of Gustav is small. Applying a proportional reading on *few* gives us the correct result. But (6a) is odd. The best available explanation is that a quantifier such as *few* lends itself to a scalar implicature comprising the empty set (*few if not none*).

Interestingly, Lechner (2002: 12) comes up with a case where negation can occur with a comparative. This is what he calls "parallel comparatives":

(7) Mary read more books than she didn't read.

He further notes that this effect is only possible with count nouns, not with predicative, attributive comparatives, and not with mass terms, stating that "it seems as if a bi-partition can be established only if the comparison relation operates on degrees that keep track of cardinality (as in *d-many books*)". This is already an explanation: only when the set of entities yielding degrees to abstract over is a contingent complement to another set of a larger set of entities (i.e. *books she didn't read* vs. *books she read*) is it possible to fulfil the requirement that the maximized set of degrees can denote.

Now, with strong NPIs we might wonder why they are impossible in a context that can be shown to be DE. Actually, comparatives are a good test-case to discern strong from weak NPIs, which are fine in comparatives. But it is not the mere lack of an anti-additive operator, as Zwarts would have stated, but the fact that comparatives and strong NPIs bear contradicting conditions. While comparatives need to make sure that the set of extensions w.r.t. entities with a property that yields degrees must not be empty, strong NPIs demand the opposite, otherwise their own meaning leads to a contradiction.

4 A note on contingency: Sub-trigging

The previous example (7) might also be relevant for one of the most interesting puzzles concerning weak-NPIs: sub-trigging. Providing a set with a defined cardinality by partioning the set of books in a given context shares some similarity to extending a set of entities into a set of situations (in a given context). Both cases would not work without some sort of contingency. As already noticed in LeGrand (1975), weak NPIs may show up in simple declarative sentences given that their restriction is confined in an appropriate way (see Dayal 1998 for an extensive discussion and analysis).[9] In fact, it is in this paper where she defines the essential condition on sub-trigging: the quantified expression must be restricted essentially and propositionaly in such a way that it provides its own situation variable that, however, must be able to extend into the situation variable of the whole sentence. Consider the contrast in the following pair (Dayal 1998):

(8) a. Bill offered Mary everything/*anything he had cooked for dinner.
    b. Those days Bill offered Mary everything/anything he cooked.

While (8b) fulfills the conditions of contingency, (8a) does not, since there was only one cooking event/situation that would not be contingent on each individual offering of the products of Bill's kitchen. What remains to be answered is why non-contingently restricted simple declarative statements are unacceptable, and why contingent restriction provides remedy.

Recall that Krifka's explanation rested on the assumption that weak NPIs are scalar in terms of specificity. Scalar assertion in non-DE contexts is not possible on pragmatic grounds, since by scalar implicature every stronger proposition (applying the scheme to more specific alternatives) needs to be false, but by virtue of the weak NPI comprising the whole set of entities with a given property (e.g., being a "thing") this is contradicted in non-DE contexts. Q.E.D., but does it, or how does it carry over to sub-trigging?

Weak NPIs denote Hamblin-sets that cannot be turned into a referential expression by existential closure (or, under an alternative account by applying a choice-function). However, these Hamblin-sets have to be "tamed" in some way or other. If not, the only interpretation available would be as a minimally specific expression yielding the weakest possible statement in non-DE contexts. Hence, Krifka's reasoning must apply. When sub-trigging obtains, each member of the Hamblin-set is individually bound to an event/situation that matches up

[9] I use the term "weak NPI" for *any* in a generalized way, assuming that there is no lexical ambiguity involved. Other authors, including Dayal (1998), systematically discern between (weak) NPIs and free-choice items, with varying implications.

the event/situation set of the main clause, hence externally defined. Notice that while the set still remains the same and projects, it is strictly confined (and also defined) by the set of event/situation of the given main clause. In such a case, but perhaps also in other cases, the scalar reasoning cannot be applied anymore, and the weak NPI receives a sensible interpretation (the assertion is meaningful).

5 Conclusion

While following my long standing desire to support the hypothesis that there is no lexical ambiguity between existential and free-choice (weak) NPIs, I have focussed – not only to match the title of this book – on NPIs in the context of comparatives. I try to show that an analysis in terms of Hamblin-sets would not only work well within standard semantic analysis of comparatives (using von Stechow (1984) as a point of reference), but also give a natural explanation to the fact that the interpretation of weak NPIs, including /em ever, is always (quasi-)universal within the standard of comparatives. On the other side, strong NPIs are not felicitous there, at all. The reason behind this is that comparatives and strong NPIs have contradictory conditions regarding the set of entities one can abstract the relevant degrees from. While the former require it not to be empty, strong NPIs demand it to be the empty set. Finally, I speculated about subtrigging cases which by definition require contingency between the restriction of the weak NPI and the event/situation frame of the main clause. I propose to make contingency responsible for the blocking of a scalar reading of the NPI, just as in comparatives.

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Abbreviations

DE	downward entailing
DP	determiner phrase
FCI	free-choice item
NP	noun phrase
NPI	negative polarity item
PI	polarity item
QP	quantifier phrase

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