

# **Better Low Pay than No Pay: Propositional Adjectives Obviate Negative Island Effects**

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## **1 Introduction**

In literature on comparatives, it has repeatedly been noted that the insertion of an *n*-word such as *nobody* in (1) below or *no* followed by an ensuing noun (or determiner) phrase as in (2) in the standard term of a comparative construction leads to a Negative Island Effect (NIE) ultimately rendering the corresponding comparative at least unacceptable, if not downright ungrammatical<sup>1</sup>:

- (1) \*John weighs more than nobody weighs. [Rullmann 1995, p. 39; his (2b)]  
(2) \*Mary is taller than no boy is. [Gajewski 2009, p. 340; his (2)]<sup>2</sup>

To the best of my knowledge, this phenomenon was first described in Lees (1961, p. 175) and has always remained a recurring issue to which much attention has been paid in literature on comparatives ever since, even though a robust empirical database on this linguistic phenomenon is still missing till this very day.

What I observed, however, is that this pattern is actually considerably less systematic than it might appear at first glance, as can be seen from the dialogue in (3) uttered on the occasion of a meeting that happened to be attended by nobody but Peter and that I accidentally overheard quite some time ago or from the exclamation given in (4), across which I came in the *Oxford English Dictionary*:

- (3) A: Only Peter turned up. B: That's still better than no-one at all.  
(4) Better late than never! [OED, under the entry for 'late']

Crucially note that in these two examples, the two *n*-words *no-one (at all)* and *never* occur precisely within the standard term of the respective comparatives and

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<sup>1</sup> In referring to the phenomenon under discussion here as a 'Negative Island Effect', I follow common practice in the relevant literature, even though this terminology actually happens to be somewhat misleading: Strictly speaking, we are not really dealing with an island effect in the classical syntactic sense of the word, here, such as for instance the ban on extraction out of complex noun phrases or relative clauses, but rather with a ban on extraction that is operative at the level of Logical Form, only, in that the corresponding *n*-words are supposed not to be able to leave the comparatives' standard terms (i.e. the *than*-clauses) within which they originate.

<sup>2</sup> It is interesting to observe that these examples resulting in an NIE taken from the literature invariably involve a standard term that is clausal in nature. For a detailed discussion of whether or not the corresponding (at least superficially) phrasal comparatives would also be infelicitous, I refer the interested reader to Hofstetter (in preparation, in particular section 3.3.3).

thus give rise to exactly the same configuration as was held responsible for the attested NIEs with data such as (1) or (2) above. The existence of such apparent counter-examples thus immediately raises the following two questions: What is the exact empirical scope of these, both, in the English language itself, as well as from a cross-linguistic point of view, that is, are these part of a limited number of exceptions or do they constitute the visible sign of a productive pattern? And if the latter is indeed the case, is their distribution purely random or is it possible to detect a systematicity underlying their occurrence? In order to answer these questions, I ran individual corpus studies in the four languages English, German, French and Spanish, based on the *British National Corpus (BNC)*, *Cosmas*, *Frantext* and the corpus provided by the *Real Academia Española*, respectively. For reasons of spatial limitations, I cannot really reproduce the results gained from these four corpus studies here, and I shall confine myself to just summarising the three main insights obtained thereby: In all four languages under consideration, comparatives obviating NIEs we would traditionally expect to arise co-occur with pretty much any *n*-word there happens to be, they appear with a wide range of different adjectives and adverbs, and they are actually astonishingly frequent, so that this pattern is clearly productive and examples like (3) or (4) above thus cannot simply be brushed aside as a handful of exceptional cases that have been fully lexicalised in the respective languages in a purely accidental fashion and that instead, a fairly general and ideally even cross-linguistic approach to the (non-) occurrence of NIEs is required, which is precisely what I shall offer in this article. Doing so, in section 2.1, I shall first of all account for those cases that do indeed give rise to NIEs such as (1) or (2) above and in a second step, I shall then address the question of why others do not normally do so (section 2.2). Given that the account I am about to develop crucially hinges on a distinction between what I shall refer to as ‘ordinary’ gradable predicates on the one hand and ‘propositional’ ones on the other, section 2.3 will then introduce two straightforward diagnostics for distinguishing between these two and apart from concluding this paper, its final section 3 will also present a brief outlook.

## **2 Accounting for the attested distribution of Negative Island Effects**

### **2.1 Explaining their occurrence**

#### **2.1.1 Undefined maxima: von Stechow (1984) and Rullmann (1995)**

A formal account of the type of NIEs under discussion here was already sketched in von Stechow (1984, pp. 33f.) and fully elaborated later on in Rullmann (1995). The essential idea underlying this account is the observation that according to the comparative semantics adopted there, the standard term in a sentence like (2) above would have to be assigned a denotation along the lines of *max* ( $\lambda d. no\ boy\ is\ d-tall$ ). As things turns out, however, this maximal degree necessarily happens to be undefined, given that the height scale is an open scale and that there are thus infinitely many degrees of height above the height of the tallest individual in a given scenario. Within such an open set, it is thus completely impossible to

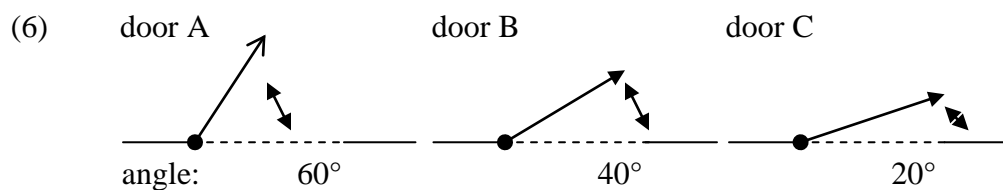
successfully identify a maximal element, and the undefined meaning of the comparative's standard term is then inherited and spreads to all higher nodes in the compositional calculation, so that the denotation of the entire comparative construction ends up being undefined. Of course, this represents a most welcome result in that this undefined meaning can offer a straightforward explanation for the NIE and the unacceptable status a sentence like (2) is associated with.

Attractive as this approach might certainly look at first glance, serious doubt has been cast on it in Beck/Rullmann (1996) already, finding fault above all with the heavy reliance of this account on the notion of maximality alone. In this fashion, they show for instance that questions such as that in (5) require a minimum rather than a maximum as an appropriate and informative answer:

(5) How many eggs are sufficient to bake this cake? [ibid., p. 72; their (2)]

With examples like these, maximality is obviously not the decisive element and Beck/Rullmann (1996) therefore suggest to replace the static notion of maximality by a more flexible one of maximal informativity, so that the crucial element is no longer necessarily the maximal one, but rather the maximally informative one, which corresponds for instance to a minimum in the case of example (5).

Interestingly enough, an additional and new kind of argument against the maximality approach proposed in von Stechow (1984) and Rullmann (1995) directly emerges from the domain of NIEs with comparatives dealt with, here: To see this, imagine a situation involving three doors that are open to different degrees, door A being open at an angle of 60 degrees, door B at one of 40 degrees and door C finally at one of no more than 20 degrees, as depicted in the illustration in (6) below, representing this scenario as seen from above:



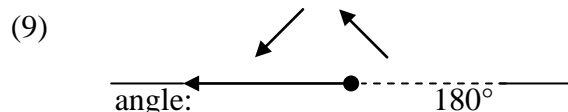
In such a situation, the statements in (7) below appropriately describe the given state of affairs, whereas those listed in (8) cannot be uttered felicitously and are judged to be totally unacceptable, instead:

(7) Door A is more open than door B/than door C.

(8) \*Door A is more open than no door/than none.

Observe, now, that the unacceptability of the latter comes as a complete surprise under a von Stechow (1984)/Rullmann (1995)-style analysis: For in contrast to the height scale associated with the adjective *tall(er)* in sentence (2) above, the scale representing the angles at which a door can be open does not constitute an

open scale, but is in fact closed. Depending on the exact type of door one is dealing with, its maximal aperture angle might for instance plausibly amount to one of 180 degrees, as shown in (9) below:



Of course, this maximal angle eventually varies with the precise configuration of the door and ultimately also with that of the building in which this door has been installed itself, so that it is for instance also fully conceivable that it comes out as 90 or even 270 degrees. But be that as it may, in any case, such a maximal aperture angle definitely exists for any door whatsoever and therefore, the denotation of the standard term of the sentences in (8) above (*max* ( $\lambda d$ . *no door is d-open*)) is well-defined after all, in that a maximal member of this set can indeed be identified without difficulty. As a consequence, no undefined meaning is expected to arise with the examples in (8), the denotations of which are predicted to be impeccable, instead, but in spite of that, these are clearly out, a fact that the approach pursued in von Stechow (1984) and Rullmann (1995) does not allow to capture adequately<sup>3</sup>. Finally notice that in a similar fashion, other “absolute” adjectives in the sense of Kennedy/McNally (2005) also give rise to NIEs, as demonstrated below in an exemplary fashion for the adjectives *closed* and *full* in (10) and (11), respectively:

(10) \*Door C is more closed than no door/than none.

(11) \*Bucket A is less full than no bucket/than none.

In total, the expectation according to which adjectives associated with closed scales should not lead to NIEs in that these should always come with well-defined maximal denotations of the respective comparatives’ standard terms, is thus

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<sup>3</sup> Critical minds might object at this point that sentences such as the ones introduced in (8) are not really ill-formed due to the occurrence of an NIE, but rather by virtue of the fact that in a scenario such as the one considered here, these would actually have to express a blatant contradiction: Given that the maximal degrees of aperture associated with doors B and C happen to be angles of 180 degrees in the situation illustrated in (6) above, the sentences in (8) would actually have to state that door A is open at an angle that exceeds this maximum and thus lies above 180 degrees, which is not possible, however, because door A does not open any further than that itself. Uttering the examples in (8) would thus inevitably lead to a contradiction per se, which might be held responsible for their degraded status. But once we alter the basic scenario, it immediately becomes clear that such an objection is not really tenable: For if we assume that the building we are dealing with has been constructed in such a fashion that our door A disposes of a maximal aperture angle of 270 degrees and leave everything else unchanged, the potential contradiction would be bound to disappear right away and yet, such a modification of the underlying context does not improve the status of the examples in (8) in the least, so that it is indeed the occurrence of an NIE and not a contradiction arising from a badly chosen scenario that is at the very heart of their ill-formedness.

clearly not fulfilled. Evidence from the (non-)occurrence of NIEs as discussed here can therefore supply an additional and new kind of argument against the accounts in von Stechow (1984) and Rullmann (1995) on top of those already offered in Beck/Rullmann (1996). At the same time, however, this also means that this approach has to be abandoned as a possible explanation for the NIEs attested in examples like (1) or (2), as which it had originally been intended, and I shall thus look for a more durable alternative strategy of accounting for these, next.

### **2.1.2 Maximal informativity and density of scales: Fox/Hackl (2006)**

Building on substantial insights gained from Beck/Rullmann (1996), Fox/Hackl (2006) propose a different account of NIEs in comparatives (alongside with a couple of other empirical phenomena) by combining the central concept of maximal informativity the former arrived at with the assumption that all scales are inherently dense in nature, as captured by the notion of their so-called ‘Universal Density of Measurements’ (ibid., p. 542). To get an idea of how this approach is supposed to work in practice, let us take another look at sentence (2) above. What the standard term of this comparative would now have to denote is the maximally informative degree to which none of the boys happens to be tall, as can be seen from its denotation given in (12) below, where “inf” abbreviates ‘informativity’:

$$(12) \quad [[\textit{than no boy is}]] = \max_{\text{inf}} (\lambda d. \textit{no boy is } d\text{-tall})$$

Obviously, this most informative degree corresponds to the first degree above that of the tallest boy in a given scenario, because all greater degrees would automatically be classified as less informative, in that these could always be directly inferred: Suppose for instance that we know that there is no boy reaching a height degree of 1.85m. In that case, it would immediately be entailed that the size of no boy attains any degree larger than that, either, such as for example 1.86m, 1.88m or 1.91m. For the sake of illustration, let us consider a context where just three boys are present, Peter, Stan and Laurel, being 1.80m, 1.70m and 1.60m tall, respectively. If anyone now uttered sentence (2), we would have to be able to pick the maximally informative degree to which none of these three boys is tall in order to interpret this sentence. By virtue of the fact that Peter happens to be the tallest individual present, him measuring 1.80m, this would amount to identifying the first degree above these 1.80m. One might plausibly go for 1.81m, but at this point, the second main ingredient of Fox/Hackl (2006)’s proposal enters the stage: Their ‘Universal Density of Measurements’ has it that all scales employed in natural language measurement are invariably dense and thus, the height scale involved in our scenario must necessarily be such as well. It is therefore possible to find other degrees in between 1.80m and 1.81m on that scale, say, for instance, 1.805m. Then, selecting 1.806m for this maximally informative degree will however not improve matters in that a height degree such as 1.8055m would still lie in between 1.805m and 1.806m and likewise, subsequently choosing for example 1.8056m for the relevant most informative degree will not

be of much help either, given that further degrees within the interval ranging from 1.8055m to 1.8056m on our height scale, such as 1.80555m, could still be easily identified and of course, this reasoning could be carried on ad infinitum, because there always happens to be a third degree in between any other two degrees on a dense scale, as recast in a more formal fashion in what follows:  $\forall d_1, d_2 \in D_d [d_1 > d_2 \rightarrow \exists d_3 \in D_d [d_1 > d_3 > d_2]]$ . In the end, the maximal degree to which none of the boys is tall therefore remains totally unidentifiable, so that the denotation of the standard term in an example like (2) ends up being undefined and so will the denotation of the entire comparative containing it. Just as was the case with the original proposal inspired by von Stechow (1984) and Rullmann (1995), the one advocated in Fox/Hackl (2006) thus allows us to account for the unacceptable status of data such as (2) in terms of undefinedness, which indeed typically results in unacceptability.

As it turns out, the approach in Fox/Hackl (2006) is preferable to the former one, though, because it also permits to successfully handle comparatives including “absolute” adjectives, that is adjectives which are associated with closed scales, as was exemplified on the basis of the gradable predicate *open* in (7). Remember from above that a von Stechow (1984)/Rullmann (1995)-style analysis systematically fails in such cases due to the fact that the maximal degree to which a door opens is in fact fully determined, so that no undefinedness is bound to arise within these comparatives’ standard terms, the entire comparatives therefore wrongly being expected to be acceptable in having a completely well-defined meaning. In contrast to this, Fox/Hackl (2006) make entirely different predictions in this regard: In a scenario such as that introduced in (6) above, the standard term of the comparatives in (7) will denote  $\max_{inf} (\lambda d. \text{no door is } d\text{-open})$ , which corresponds to the first degree above an aperture angle of 40 degrees, that is the smallest angle exceeding that of the other doors’ which counts as largest (that of door B in the case at hand). By precisely the same line of argumentation as with example (2) before, it will now once again be totally impossible to identify the value of a degree of openness minimally surpassing 40 degrees on the dense scale of aperture, so that this standard term does indeed give rise to undefinedness after all, which constitutes a most welcome result, in that this provides us with an immediate account of the infelicitous status of sentences like (8). And of course, Fox/Hackl (2006)’s approach directly carries over to data such as (10) or (11), where the denotations of the standard terms of the respective comparatives are also expected to be undefined in an entirely parallel way, thus explaining their unacceptable status. In sum, the combination of maximal informativity and general density of scales as suggested in Fox/Hackl (2006) thus ultimately permits to account for the attested NIEs with examples such as (1) or (2) in an elegant and principled way. This then, however, leaves us with the question of why no such NIEs related to undefinedness occur in examples like (3) or (4) given in the introductory section 1 above, an issue which I shall address in some detail in the following section 2.2, for in contrast to cases that do indeed lead to NIEs, those

that obviate them, have – at least as far as I am aware of – never been taken into consideration in any systematic fashion in linguistic literature up to now.

## 2.2 Accounting for the absence of Negative Island Effects

### 2.2.1 Two initial observations

Let me begin this section by introducing two empirical observations that will reveal themselves to be absolutely decisive for the development of the analysis I am going to propose for comparatives featuring *n*-words in their standard terms that do nevertheless not show the kind of NIEs discussed and accounted for in the previous subsection. The first of these consists in the fact that a deeper embedding of the respective *n*-word within a comparative's standard term usually prevents the occurrence of such an NIE, as demonstrated by an example like (13), where the corresponding *n*-words *nobody* and *nothing* happen to be inside a complementiser phrase in turn modifying the noun (or determiner) phrase *an exhibition* and thus to be embedded more deeply within the comparative's standard term, as shown by the partial structure provided for this sentence in (14):

- (13) There's nothing I hate more than going to an exhibition where there's nobody there whom I know and there's nothing there which I like.  
[*Schoolgirls' Creative Writing*; accessed via the *BNC*]
- (14) There's nothing I hate more [<sub>CP1</sub> than going to an exhibition [<sub>CP2</sub> where there's nobody there whom I know and there's nothing there which I like]].

Crucially observe that this time, the situation we are facing is a fundamentally different one, altogether: In sentence (13), what is denied is not the existence of the exhibition about which the comparative's standard term makes a statement as such, but only that of particular properties characterising this exhibition. The denotation of its standard term ( $max_{inf}(\lambda d. I \text{ hate } [going \text{ to an exhibition where there's nobody there whom I know and there's nothing there which I like}] \text{ } d\text{-much})$ ) will therefore end up being fully defined under an approach along the lines of Fox/Hackl (2006), because it is no problem at all to identify the maximally informative degree to which the speaker in question hates attending an exhibition with the properties specified in the second complementiser phrase of (13), which sort of accidentally happen to be negative in nature. A second important observation concerns the exact shape the standard terms of comparatives including *n*-words and yet not resulting in NIEs can take, which is that of an entire proposition, as illustrated by the overt conditional in (15) below:

- (15) The market price for the good will be higher than if no tariffs were imposed [...]  
[*KBS Open Learning MBA Programme*, London: BPP Publishing, 1989; also accessed via the *BNC*]

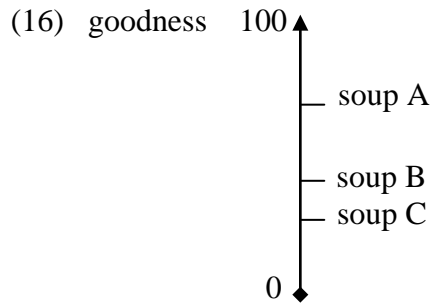
Bearing these two essential preliminary empirical observations in mind, we are now fully equipped to tackle an explanation as to why no NIE arises with examples such as those that were introduced in (3) and (4) in section 1 above.

### **2.2.2 The basic approach: propositional versus ordinary predicates**

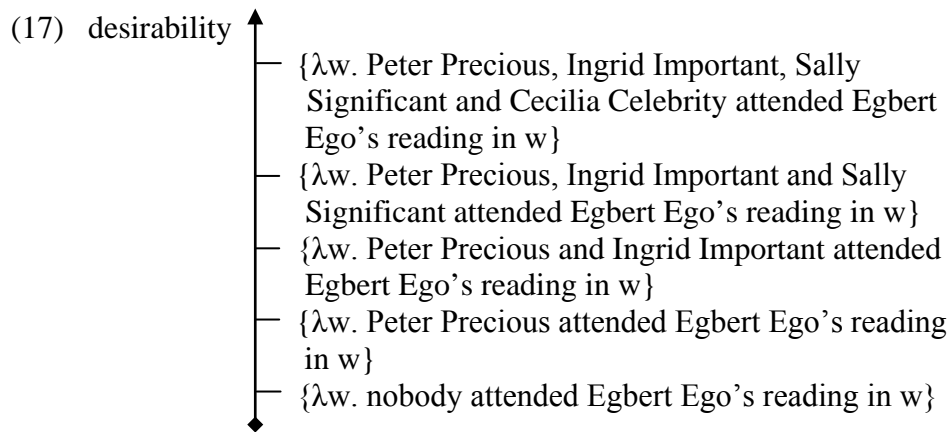
In what follows, I shall propose a novel analysis of what I shall refer to as ‘propositional’ adjectives and adverbs. Doing so, I shall greatly make use of an important insight taken from Villalta (2007), where propositional attitude verbs such as *to hate* or *to want* are discussed and where the author claims that these typically give rise to an “alternative semantics” in the sense of Rooth (1992), an assumption which in my opinion is decisive for the proper understanding of the class of what I shall call ‘propositional’ adjectives and adverbs here, as well. Let me also stress right from the outset, however, that certain aspects of the proposal I am about to make differ radically from the approach defended in Villalta (2007) for that special subclass of verbs and that I shall in particular deviate from the latter in two significant respects: First of all, I shall not assume a semantics for propositional adjectives and adverbs that is inherently superlative in nature and secondly, I shall also dissociate myself from the very special contribution attributed to the choice of the subjunctive (as opposed to that of the indicative) mood in Villalta (2007) (for details, cf. the discussion in Hofstetter (in preparation, in particular subsections 3.3.2.3.1 and 3.3.2.3.2)). As a next step, I shall now develop the fundamental ideas of my analysis for gradable predicates on the basis of the adjective *good*, which lends itself particularly well to this kind of enterprise in that it displays both, uses as an ordinary alongside with usages as a propositional gradable expression. To this end, I should first of all like to introduce two basic scenarios and then go through the derivation of the comparative, the positive and the superlative as the three most fundamental comparison constructions both, for ordinary as well as for propositional *good*, in a stepwise fashion.

As the first scenario, imagine a company producing soups that wants to launch a new product. About two months ago, it had come up with three new recipes, but the company’s executives were not sure which of these would sell best on the market and therefore, they decided to make a number of volunteers try them. Participants in this test were then asked to judge the soups on a scale ranging from “0” (corresponding to perfectly unpalatable) up to “100” (absolutely delicious). Suppose now that soup A received an average judgment of 74, while soup B scored 48 points on this scale, and soup C got 32 points on average, as depicted in the little drawing in (16) below:





As a second basic scenario for illustrative purposes assume further that Egbert Ego is a would-be poet and happens to have a rather conceited wife. Last week, he gave a reading at a public library, and his wife would have appreciated it highly if the following people had turned up to assist her husband’s performance: Peter Precious, the managing director of a huge publishing company, Ingrid Important, an influential patron of the fine arts, Sally Significant, the local mayor and finally Cecilia Celebrity, a member of the House of Commons. Moreover, Egbert Ego’s wife had the following personal preferences about the presence of these people, as shown in (17) below in decreasing order of actual desirability, that is, she would have preferred a situation in which all four of these renowned people showed up to one in which only three attended her husband’s reading, etc.:



Let me now start discussing individual examples by first having a look at the comparative in (18) below, featuring the adjective *good* in its ordinary use, where it expresses a relation between an entity and a degree, as shown in (19) (where “ord” is intended as an abbreviation of the ‘ordinary’ usage of this adjective):

(18) Soup A is better than soup B.

(19)  $[[good]]_{ord} = \lambda w \in D_s. \lambda x \in D_e. \lambda d \in D_d. goodness_w(x) \geq d$

If we further assume a standard entry for the comparison operator such as the one introduced in (20) below, sentence (18) will be predicted to denote the set of

possible worlds specified in (21), that is those worlds in which soup A outdoes soup B in taste, quality or the like, which is as desired, given that this corresponds exactly to what example (18) arguably means:

- (20)  $[[[-er]]] = \lambda D_1 \in D_{\langle d,t \rangle}. \lambda D_2 \in D_{\langle d,t \rangle}. \max_{\text{inf}}(D_2) > \max_{\text{inf}}(D_1)$   
[cf. Beck 2011, p. 1347; her (35b)]
- (21)  $[[[(18)]]] = \lambda w. \max_{\text{inf}}(\lambda d. \text{goodness}_w(\text{soup A}) \geq d) > \max_{\text{inf}}(\lambda d. \text{goodness}_w(\text{soup B}) \geq d)$

With example (22), I next turn to a comparative including a propositional instantiation of the gradable adjective *good*:

- (22) That Peter Precious attended Egbert Ego's reading was better than that Cecilia Celebrity stayed away.

In order to account for such a sentence, I suggest to simply replace the individual type argument in the lexical entry of ordinary *good* in (19) above by one that is propositional in nature, as has been done in (23) below (where “prop” abbreviates a ‘propositional’ use of a gradable adjective, that is precisely one in which that adjective denotes a relation between a whole proposition and a degree):

- (23)  $[[good]]_{\text{prop}} = \lambda w \in D_s. \lambda p \in D_{\langle s,t \rangle}. \lambda d \in D_d. \text{desirability}_w(p) \geq d$

Leaving the comparison operator (cf. (20)) completely untouched, sentence (22) will denote the set of worlds in (24), namely those worlds in which a situation where Peter Precious did indeed attend Egbert Ego's reading is judged to be preferable to one in which Cecilia Celebrity stayed away, once again as desired:

- (24)  $[[[(22)]]] = \lambda w. \max_{\text{inf}}(\lambda d. \text{desirability}_w(\lambda w'. \text{Peter Precious attended Egbert Ego's reading in } w') \geq d) > \max_{\text{inf}}(\lambda d. \text{desirability}_w(\lambda w''. \text{Cecilia Celebrity stayed away in } w'') \geq d)$

Let us now turn to positive constructions, starting as before with one involving an ordinary use of the adjective *good*, such as that introduced in (25):

- (25) Soup A is good.

Adding a positive operator along the lines of (26) below to our technical machinery, sentence (25) will correctly be predicted to denote (27) below:

- (26)  $[[POS_C]] = \lambda D \in D_{\langle d,t \rangle}. \forall d \in D_d [d \in L_C \rightarrow D(d)]$  (where “ $L_C$ ” corresponds to the ‘neutral’ zone of the respective scale)  
[cf. Beck 2011, p. 1352; her (65)]

$$(27) \quad [[(25)]] = \lambda w. \forall d \in D_d [d \in L_C \rightarrow \text{goodness}_w(\text{soup } A) \geq d]$$

Leaving the lexical entry of propositional *good* as well as that of the positive operator unaltered, a positive construction such as (28) below including *good* in its propositional use will then automatically be expected to denote the set of possible worlds identified in (29), which once more represents a most welcome result, in that this adequately captures sentence (28)'s actual meaning:

(28) That Peter Precious attended Egbert Ego's reading was good.

$$(29) \quad [[(28)]] = \lambda w. \forall d \in D_d [d \in L_C \rightarrow \text{desirability}_w(\lambda w'. \text{Peter Precious attended Egbert Ego's reading in } w') \geq d]$$

The introduction of a superlative operator, the denotation of which is specified in (30) below (where the term “g (C)” corresponds to the set of contextual alternatives made available by applying the variable C to the assignment function g with respect to which a sentence such as (31) is interpreted)<sup>4</sup>, will finally allow us to deal with superlative constructions such as the one exemplified by (31), involving the gradable adjective *good* in its ordinary usage and whose meaning will thus look as in (32) below:

$$(30) \quad [[-est_C]]^g_{\text{ord}} = \lambda D \in D_{\langle e, \langle d, t \rangle \rangle}. \lambda x \in D_e. \forall y \in D_e [(y \in g(C) \ \& \ y \neq x) \rightarrow \max_{\text{inf}}(\lambda d. D(x)(d)) > \max_{\text{inf}}(\lambda d. D(y)(d))]$$

(31) Soup A is (the) best.

$$(32) \quad [[(31)]] = \lambda w. \forall y \in D_e [(y \in \{\text{soup } A, \text{soup } B, \text{soup } C\} \ \& \ y \neq \text{soup } A) \rightarrow \max_{\text{inf}}(\lambda d. \text{goodness}_w(\text{soup } A) \geq d) > \max_{\text{inf}}(\lambda d. \text{goodness}_w(y) \geq d)]$$

And a minor modification of the superlative operator as shown in (33) below with the intention of making it applicable to propositional rather than individual-type arguments will ultimately enable us to derive a superlative like (34) based on a propositional instantiation of the adjective *good*, the denotation of which finally comes out as specified in (35), once more exactly as desired:

$$(33) \quad [[-est_C]]^g_{\text{prop}} = \lambda D \in D_{\langle \langle s, t \rangle, \langle d, t \rangle \rangle}. \lambda p \in D_{\langle s, t \rangle}. \forall q \in D_{\langle s, t \rangle} [(q \in g(C) \ \& \ q \neq p) \rightarrow \max_{\text{inf}}(\lambda d. D(p)(d)) > \max_{\text{inf}}(\lambda d. D(q)(d))]$$

(34) That Peter Precious, Ingrid Important, Sally Significant and Cecilia Celebrity attended Egbert Ego's reading was best.

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<sup>4</sup> At this point, the reader might wonder by what mechanism these alternatives actually come into being and how these get evaluated. These constitute issues that are rather intricate in nature and that I unfortunately cannot enter, here, for lack of space, but they are discussed at quite some length in Hofstetter (in preparation, subsection 3.3.2.3.1).

- (35)  $[[ (34) ] ] = \lambda w. \forall q \in D_{\langle s, t \rangle} [(q \in \{ [\lambda w'. \text{Peter Precious, Ingrid Important, Sally Significant and Cecilia Celebrity attended Egbert Ego's reading in } w'] , [\lambda w'. \text{Peter Precious, Ingrid Important and Sally Significant attended Egbert Ego's reading in } w'] , [\lambda w'. \text{Peter Precious and Ingrid Important attended Egbert Ego's reading in } w'] , [\lambda w'. \text{Peter Precious attended Egbert Ego's reading in } w'] , [\lambda w'. \text{nobody attended Egbert Ego's reading in } w'] \} \& q \neq [\lambda w'. \text{Peter Precious, Ingrid Important, Sally Significant and Cecilia Celebrity attended Egbert Ego's reading in } w'] ) \rightarrow \max_{\text{inf}} (\lambda d. \text{desirability}_w (\lambda w'. \text{Peter Precious, Ingrid Important, Sally Significant and Cecilia Celebrity attended Egbert Ego's reading in } w') \geq d) > \max_{\text{inf}} (\lambda d. \text{desirability}_w (q) \geq d)]$

In total, I thus arrive at exactly parallel derivations for comparative, positive and superlative constructions featuring ordinary and propositional usages of the gradable adjective *good* throughout, with just one systematic difference: The individual-type arguments associated with the former are invariably replaced by arguments that are propositional in nature in the case of the latter, which directly reflects the different kinds of arguments involved, whereas all other components of the semantic derivation can remain unchanged, to the effect that the approach I am proposing for propositional gradable predicates is characterised by a great amount of economy right from the start. Importantly observe, now, that this analysis immediately accounts for the fact that no NIE is bound to appear when an *n*-word is inserted within the standard term of a comparative based on such propositional predicates: From the approach suggested here, it follows without any further ado that with these, an *n*-word will generally happen to be embedded within an entire proposition and as has already been shown in subsection 2.2.1 before, a deeper embedding of the respective *n*-word usually makes the NIE vanish right away. To appreciate this, let us have a look again at the little dialogue that was introduced in (3) above. Here, speaker B's reply constitutes an elliptical version of the full-fledged comparative given in (36) below, where its standard term has been extended into the equivalent complete proposition, and an application of the technical machinery developed in this section will then directly yield the denotation for this statement specified in (37):

- (36) That's still better than (if) no-one at all (had turned up).  
 (37)  $[[ (36) ] ] = \lambda w. \max_{\text{inf}} (\lambda d. \text{desirability}_w (\text{that } [= \lambda w'. \text{Peter turned up in } w'] \geq d) > \max_{\text{inf}} (\lambda d. \text{desirability}_w (\lambda w''. \text{no-one at all turned up in } w'') \geq d)$

Of course, the *no-one*-case represents a proposition that can be ranked on the corresponding scale of desirability without any difficulty, and the (maximally informative) degree to which this proposition is desirable is fully defined, too, so that in contrast to the cases discussed in section 2.1 above, this time, no NIE is correctly predicted to arise. For obvious reasons, this line of argumentation can

directly be transferred to all comparatives formed on the basis of a propositional adjective or adverb alike, by virtue of the fact that with all of these, an *n*-word in their standard term automatically happens to be embedded inside a whole proposition, so that no effect of undefinedness is expected to produce itself, and such comparatives are therefore predicted to be fully acceptable (if impeccable in other respects). Furthermore notice that the fact that such a ‘not’-case often corresponds to the worst alternative among a given set of possible alternatives normally makes comparison to it even all the more unproblematic, because such a configuration ends up being tantamount to a comparison to the direct zero point of the relevant scale (for a concrete illustration, cf. for instance the desirability scale specified in (17) above, where the negative case is indeed ranked lowest on the desirability scale the adjective *good* is associated with in its propositional use).

### 2.2.3 Diagnostics for distinguishing propositional from ordinary predicates

In view of the fact that the analysis presented so far in essence hinges entirely on whether a given gradable predicate counts among the group of ordinary or among that of propositional adjectives and adverbs, a significant issue that needs to be addressed is the question of how exactly we can distinguish between these two. Fortunately enough, two simple and straightforward diagnostics can be identified that allow us to unequivocally assign an occurrence of a given gradable predicate to one of these two fundamental classes: First of all, in the great majority of cases, propositional adjectives and adverbs permit impersonal constructions, whereas their ordinary counterparts never do so. In this fashion, the propositional usage of the adjective *good* in example (38a) below comes with an impersonal equivalent given in (38b), where the embedded proposition remains in its syntactic base position, and the semantically vacuous pronoun *it* appears in the sentence’s subject position:

- (38) a. That Peter showed up was good.  
b. It was good that Peter showed up.

In contrast to this, an ordinary adjective like *tall* typically does not give rise to such an impersonal variant, as can be seen from the perfectly ungrammatical status of (39b) below, where such an attempt necessarily fails, irrespective of whether the gradable predicate is repeated or not:

- (39) a. Peter is tall.  
b. \*It is tall that Peter is (tall).

From a more general perspective, propositional adjectives and adverbs thus normally allow a transformation along the lines of *that/if p (be) x* → *it (be) x that/if p* (where “p” abbreviates ‘proposition’ and “x” is used as a placeholder for the given adjective or adverb), which is never possible with ordinary gradable

predicates. This generalisation holds for all adjectives and adverbs counting among the ‘impersonal’ class identified in Hofstetter (in preparation, cf. subsection 3.3.2.3.2) throughout and thus for the vast majority of cases. In addition, there is a second diagnostics displaying an even greater empirical coverage in that it extends to all propositional and ordinary gradable predicates alike and that is extensibility of a given comparative with the elements *that* or *if*: With propositional adjectives and adverbs, it is invariably possible to make the propositions these contain visible by extending their standard terms into fully fledged propositions that are headed by one of these two complementisers, as has been shown here in an exemplary fashion for the little dialogue introduced in (3) in the introductory section 1 above, for which the extended version of the interlocutor’s reply has already been given in (36) above. With an ordinary gradable predicate, on the other hand, similar extensions are not feasible at all, as illustrated on the basis of the adjective *tall* in (40) below, independently of the choice of complementiser, the temporal marking on the copula as well as the potential repetition of the gradable adjective:

- (40) a. Peter is taller than Stan.  
b. \*Peter is taller than that/if Stan is/was (tall).

This then provides us with two clear-cut diagnostics that enable us to reliably tell apart propositional and ordinary gradable predicates and at the same time, it also leads to an empirical prediction: Adjectives and adverbs that are extensible in the above fashion and mostly tolerate the impersonal usage are expected not to give rise to NIEs when appearing in a comparative featuring an *n*-word in its standard term, because with these, this *n*-word will automatically happen to be embedded within an entire proposition, so that no undefinedness effect is supposed to appear. In contrast to this, comparatives involving adjectives and adverbs that do not allow this type of extension and are excluded from the impersonal construction should indeed trigger NIEs as soon as an *n*-word is inserted into their standard terms, given that this time, this *n*-word happens to be in an unembedded position, which is expected to result in an undefined denotation of the standard term containing it and ultimately of the whole comparative formed from such an ordinary predicate. And as far as the results I gained from my corpus studies in the four languages English, German, French and Spanish are concerned, this prediction is indeed fully corroborated, in that while I did not come across a single case featuring an ordinary adjective or adverb obviating an NIE, all the well-formed examples obtained from these studies invariably displayed propositional gradable predicates throughout.

### **3 Conclusions and Outlook**

In this article, I have presented an analysis for gradable adjectives and adverbs designed to meet two separate requirements at the same time: On the one hand, it is intended to derive proper denotations for ordinary and propositional uses of

gradable predicates in different comparison constructions alike and on the other hand, it provides us with an immediate explanation of the fact that the insertion of an *n*-word into a comparative's standard term leads to an NIE and thus to an unacceptable status of the corresponding comparative with ordinary, but not with propositional usages of gradable predicates. In view of the rigid spatial limitations this article is subject to, matters must unfortunately remain at this rather sketchy stage, here and I cannot enter the details of various refinements I should like to propose for this at present rather coarse analysis such as the distinction between personal and impersonal propositional adjectives and adverbs, the mechanisms by which contextual alternatives are generated and evaluated, the question of how precisely the neutral zone is established with propositional in contrast to ordinary gradable predicates with positive constructions, the choice of complementiser (*that* versus *if* in the case of English) in propositional standard terms and the role factivity plays with these or finally the contrast of phrasal as opposed to clausal comparison in the context of NIEs, for all of which I should like to refer the interested reader to the discussion offered in Hofstetter (in preparation, section 3).

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