Notes on "even"

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1. Introduction

Karttunen and Karttunen (1976) propose that the sentences in (1) and (2) below have identical truth conditions, and that the perceived meaning difference between them is to be located at the level of presuppositions. Specifically, they propose that even in (1) triggers the "existence" presupposition in (3), and the "scalar" presupposition in (4).

(1) Even Bill likes Mary.

(2) Bill likes Mary.

(3) Other people like Mary besides Bill.

(4) Of the people under consideration, Bill is the least likely to like Mary.

If the meaning of (1) can be so characterized, how is the semantics of even to be described more generally? Following Karttunen and Karttunen, let us assume that the string even Bill in (1) forms a constituent, and hence that (1) has the structure sketched in (5).

(5) [even Bill] [likes Mary]

The existence presupposition of (1) is then the proposition that the denotation of the first argument of even is not the only entity satisfying the denotation of the second argument. And the scalar presupposition of (1) is the proposition that among all the relevant entities, the denotation of the first argument of even is the least likely to satisfy the denotation of the second argument.[1]

Note that for this semantics to be applicable to cases like (6) below, we need to assume that the object noun phrase modified by even undergoes quantifier raising in the way quantificational noun phrases are often assumed to do, resulting in logical forms like (7).

(6) Bill likes even Mary.

(7) [even Mary] λ_1[Bill likes t_1]

As desired, the existence presupposition predicted by (7) is the proposition that Bill likes other

1 Since, strictly speaking, (5) assumes that even denotes a one–place function, "the second argument of even" is a sloppy reference to the argument of even Bill.

people besides Mary, and the predicted scalar presupposition is that of all the relevant people, Mary is the least likely to be liked by Bill.

This semantics for even may also extend to cases like (8) below. Here even attaches to the verb phrase, but given intonational prominence on the object noun phrase (marked by capitalization), the sentence has a reading in which it is equivalent to (6).

(8) Bill even likes MARY.

It is conceivable that (6) and (8) share the reading in question because they share the logical form in (7). For it is conceivable that even and an intonationally prominent expression in its scope can form a constituent at logical form even if the two are discontinuous at surface structure. Specifically, MARY in (8) may raise covertly to combine with even, and that the resulting noun phrase can raise further to yield (7). It is in fact doubtful that this analysis is correct, but I will nevertheless adopt it below for concreteness and ease of presentation.[2]

Moving closer to the topic of this squib, consider now the example in (9) below, also due to Karttunen and Karttunen, where the clause hosting even serves as the argument of the attitude predicate surprise. Karttunen and Karttunen observe that that (9) is ambiguous in a way brought out by the discourses in (10) and (11).

(9) John is surprised that Bill likes even Mary.

(10) Bill likes most people. Although John knows this, he did not expect Bill to be fond of anyone as unpleasant as Mary. John is surprised that Bill likes even Mary.

(11) Bill hates most people. John knows this, and although Mary is a very nice person, John did not expect Bill to be fond of her, let alone someone else. John is surprised Bill likes even Mary.

Karttunen and Karttunen note that, informally speaking, the presupposition triggered by even in (10) is unfavorable for Mary, whereas the presupposition triggered by even in (11) says something good about her. The reading brought out by (10) does perhaps not come as a surprise, for its existence follows from the assumption that a presupposition associated with the argument of surprise survives as a presupposition of the higher sentence. The reading in question can then be credited to the logical form in (12).

2 Rooth (1985) offers an alternative analysis in which even and MARY remain discontinuous in the logical form of the relevant reading. He in fact argues that this alternative analysis is preferable to the one sketched above. However, the arguments made in the following are largely independent of the analysis of cases like (8). The reader is referred to Rooth (1985) for further discussion.

(12) John is surprised that [[even Mary] λ_1[Bill likes t_1]]

If this logical form is assumed to carry any presupposition that is also carried by (7), this will hold in particular for the scalar presupposition in (4), which is naturally judged unfavorable for Mary.

Deriving the reading brought out by (11) is somewhat less straightforward. What is needed is a logical form for (9) that does not carry the scalar presupposition also carried by (7), but rather a presupposition judged to be favorable for Mary. What does this logical form look like? Section 2 reviews two possible analyses given in the literature. Section 3 and 4 present two novel arguments, based on familiar facts, involving even in relative clauses and under glad. The arguments present potential challenges to both analysis reviewed in section 2.

2. Two analyses

Karttunen and Karttunen suggest that the reading of (9) brought out in (11), call it the "second" reading, comes about through a logical form that differs from (12) only in the scope of the noun phrase even Mary. Specifically, they credit the second reading of (9) to the logical form in (13), where even Mary has extracted from the sentence embedded under surprised and adjoined to a position where it takes widest scope.[3]

(13) [even Mary] λ_1 [John is surprised that [Bill likes t_1]]

In this logical form, the second argument of even does not denote the property of being someone liked by Bill, but rather the property of being someone whose being liked by Bill is surprising to John. Accordingly, the existence and scalar presupposition predicted to be associated with (9) are those stated in (14) and (15), respectively.

(14) For other people besides Bill, John is surprised that Mary likes them.

(15) Of the people under consideration, Mary is the least likely person to surprise John by being liked by Bill.

It is conceivable that these are the presuppositions giving rise to the second reading of (9), for (15) is likely to be interpreted as favorable for Mary. Suppose, for example, that Mary and Sue are the

3 It is not obvious that (13) is well–formed, given that the scope of quantifiers is often considered clause–bound. However, since this generalization is controversial, let us give (13) the benefit of the doubt. We will return to the issue of scope locality in section 3.

people under consideration. In that case, (15) conveys that John's being surprised that Bill likes Mary is less likely than John's being surprised that Bill likes Sue. This might be true by virtue of Mary being a more likable person than Sue. In the general case, it is plausibly inferred from (15) that Mary is more likable than all the other people under consideration. For Karttunen and Karttunen, it is this inference that gives rise to the intuition that the presupposition associated with the second reading is favorable for Mary.[4]

Rooth (1985) offers an alternative analysis of the second reading of (9), according to which the source of the perceived ambiguity of the sentence is a lexical ambiguity of even, rather than a structural ambiguity as to the scope of even Mary.[5] Rooth suggests that, apart from the lexical item even with the semantics described above, there is a homophonous item even_n with a semantics much like even, except that its second argument is negated in the calculation of presuppositions. The logical form in (16), for example, would be associated with the existence presupposition in (17) and the scalar presupposition in (18).

(16) $[\text{even}_n \text{ Mary}]\ \lambda_1[\text{Bill likes } t_1]$

(17) There are people distinct from Mary, who Bill does not like.

(18) Of the people under consideration, Mary is the least likely not to be liked by Bill.

It is plausible to assume that a proposition is less likely to be true than another proposition if and only if the negation of the former is more likely to be true than the negation of the latter. In that case, the statement in (18) conveys that, of the people under consideration, Mary is the most likely to be liked by Bill, which is normally judged in her favor.

It is now straightforward to credit the second reading of (9) to the logical form in (19), which minimally differs from the logical form in (12) in lexical content. As in the derivation of the first reading of (9), we assume that a presupposition associated with the embedded sentence survives as a presupposition of the larger sentence.

(19) John is surprised that $[[\text{even}_n \text{ Mary}]\ \lambda_1[\text{Bill likes } t_1]]$

The structure in (19) is then predicted to carry the favorable scalar presupposition in (18), which

4 Karttunen and Karttunen do not discuss the adequacy of (14). I suspect that, given the factivity of surprised, this existence presupposition is too strong. Sentence (9) seems intuitively compatible with a scenario where Bill is the only one liked by Mary, a case that is excluded by (14). For more discussion of existence and factivity, see Wilkinson (1996) and section 4 below.

5 More accurately, Rooth proposes that lexical ambiguity is a possible source of the perceived ambiguity of (9). The question whether there is an additional scope ambiguity is perhaps a different matter. For the case at hand, Rooth presumably would not want to exclude wide scope even.

accounts for the second reading of (9), perhaps doing so in a more direct way than the scope account of Karttunen and Karttunen.

It is apparent, though, that the lexical theory of (9) as presented so far is not yet complete. After all, an ambiguity of the kind attested in (9) is not observed in simple cases like (6). The scope theory of Karttunen and Karttunen predicts this straightforwardly, as there is no scope bearing expression in (6) for even Mary to scope over. In the lexical theory, on the other hand, there is a need to exclude the logical form in (16), which would otherwise derive an unattested second reading for (6). What is needed, then, is a theory of the distribution of even_n.

Rooth offers such a theory by proposing that even_n is a negative polarity item and hence has a distribution much like the familiar negative polarity items any and ever. As illustrated in (20) and (21) below, this proposal correctly predicts that (9) displays a second reading, whereas (6) does not.

(20) * Bill likes any linguist.

(21) John is surprised that Bill likes any linguist.

Since the scope theory and the lexical theory of second readings associated with even are very different in nature, it should be possible to tell them apart. There are at least two kinds of data that might allow one to distinguish the two theories. First, we have seen that the two theories derive similar but distinct presuppositions for the second reading of example (9). In this particular case, it is hard to argue that intuitions fit better with one prediction than the other. But there might be other cases where the existence presuppositions or the scalar presuppositions predicted by the two theories differ more radically. Second, there might be cases where both theories provide structures with appropriate interpretations, but where one or the other structures can be argued to be ill–formed. In particular, the logical forms in question might be at odds with the theory of scope relations or the theory of negative polarity.

The main sources of arguments regarding the analysis of second readings are Rooth (1985), who argues against the scope theory of Karttunen and Karttunen (1976) and for his lexical theory, and Wilkinson (1996), who presents arguments for the scope theory and against the lexical theory. I will not review these arguments here. I will instead point to two additional observations, which are puzzling under both theories. Both puzzles are immediate consequences of arguments made in the literature, but have not yet been stated explicitly. The first puzzle involves even in a relative clause under every, the second puzzle involves even embedded under the attitude predicted glad.

3. The first puzzle

The first puzzle emerges from the discussion of even and negative polarity in Rooth (1985) and

Heim (1984). Rooth reports that the sentence in (22) below, where even is contained in a relative clause, exhibits an ambiguity reminiscent of the one in (9).

(22) Every linguist who even read SYNTACTIC STRUCTURES was immediately hired by a multinational corporation.

Sentence (22) has a first reading in which it intuitively presupposes that Syntactic Structures is an unlikely thing for a linguist to read, perhaps because it is a more advanced reading than other books. This reading of (22) is brought out in the discourse in (23). It can be credited to the logical form sketched in (24), where even scopes within the relative clause and has the standard semantics illustrated in example (1) above.[6]

(23) Every linguist who read Aspects or Lectures on Government and Binding was offered a graduate school fellowship. And every linguist who even read SYNTACTIC STRUCTURES was immediately hired by a multinational corporation.

(24) every linguist [who$_1$ [even Syntactic Structures] λ_2[t_1 read t_2]] [was immediately hired ...]

A complication arising in (24) is that the second argument of even contains a trace that is bound from outside, and therefore has a denotation only with respect to a given variable assignment. So what presupposition should one expect even to trigger in this case? Assuming the theory of presupposition composition formulated in Heim (1983), the answer is as follows.[7] The existence presupposition of (24) is predicted to be the proposition that every linguist read something besides Syntactic Structures, and the scalar presupposition of (24) is predicted to be the proposition that, for every linguist, his reading Syntactic Structures is less likely than his reading any other thing under consideration. This seem to be precisely the presuppositions intuitively associated with the first reading of (22).

In the second reading, sentence (22) conveys, roughly, that linguists are likely to read Syntactic Structures, perhaps because the book is considered an elementary text. In this reading, (22) is similar in conversational use to example (25) below.

(25) Every linguist who read any book on syntax at all was immediately hired by a multinational corporation.

6 The indexed relative pronoun is assumed to have the same semantics as an indexed lambda.

7 Strictly speaking, the logical forms here would have to be adjusted to the particular formulation of Heim's theory, which assumes that quantificational determiners combine with open sentences, rather than predicates.

Let us now examine the logical forms responsible for the second reading of (22) in the two theories under consideration. In the lexical theory, the second reading of (22) can be due to the structure in (26), which is like (24) except that $\underline{\text{even}_n}$ replaces even. The scope theory, on the other hand, must credit the second reading of (22) to the logical form in (27), where even Syntactic Structures takes scope over the entire sentence.

(26) every linguist [who_1 [even_n Syntactic Structures] λ_2[t_1 read t_2]] [was immediately hired ...]

(27) [even Syntactic Structures] λ_2[every linguist [who_1 [t_1 read t_2]] [was immediately hired ...]]

We may now ask whether or not these structures have appropriate interpretations and whether or not they violates established constraints on well–formedness. Let us first examine whether (26) and (27) have the meanings they are intended to have, focusing attention on scalar presuppositions.

The presuppositions of (26) are predicted to be those of (24) described above except that the second argument of $\underline{\text{even}_n}$ is negated. Specifically, we get the scalar presupposition that, for every linguist, his not reading Syntactic Structures is less likely than his not reading any other thing under consideration. As before, the scalar presupposition can be stated more transparently, namely as the proposition that, for every linguist, his reading Syntactic Structures is more likely than his reading any other thing under consideration. As is clear from above, this predicted scalar presupposition accords with intuitions.[8]

Turning to (27), the scalar presupposition predicted by this logical form is the proposition that of all things under consideration, Syntactic Structures is the least likely thing to be such that every linguist who read it was hired by a multinational corporation.[9] This scalar presupposition seems to match intuitions as well as the one predicted by (26). For suppose linguists are more likely to read Syntactic Structures than Aspects. It is plausibly inferred from this that Aspects is a more advanced reading than Syntactic Structures. Which in turn makes one expect that multinational corporations are less likely to hire all the linguists who read Syntactic Structures than all the linguists who read Aspects. Since the reverse chain of reasoning appears equally plausible, the interpretations of (26) and (27) are not easy to distinguish in terms of interpretation.

Let us now examine (26) and (27) as to their well–formedness, specifically their compatibility with the theories of negative polarity and scope. Sentence (25) suggests that $\underline{\text{even}_n}$ in

8 (26) derives the existence presupposition that for every linguist, there is some relevant thing that he did not read. I am inclined to think that this is too strong. Sentence (22) may well be appropriate and true in a world where some linguists read all the things under consideration. This is the kind of observation first noted by Wilkinson 1996. It leads one to conclude that either even is not ambiguous or that $\underline{\text{even}_n}$ does not trigger an existence presupposition. Wilkinson draws the former conclusion without arguing against the latter.

9 The existence presupposition predicted for (27) is the proposition that there is a relevant thing distinct from Syntactic Structures such that every linguist who read it was hired by a multinational corporation. I believe that this is appropriate.

(26) occupies a position where negative polarity items are licensed. Since the function denoted by every is known to reverse entailments, it is in fact predicted by the theory of Ladusaw (1979) that the relative clause in the scope of every can host negative polarity items. By contrast, there are reasons to consider the logical form in (27) ill–formed. For it is commonly thought that relative clauses are islands for overt movement as well as for quantifier scope. If covert extraction of quantifiers from relative clauses is to be excluded, it may be hard to argue that the extraction in (27) is well–formed. These considerations seem to point to the conclusion that the scope theory cannot account for (22), and hence that the existence of the lexical item $\underline{\text{even}}_n$ is to be acknowledged.

Notice, however, that this conclusion assumes that the quasi–equivalence of (26) and (27) is more than accidental and does not depend on the particular lexical content of (22). And in fact, a broader survey of the data suggests that this assumption is incorrect. Specifically, there are examples where the scalar presupposition predicted by the scope theory appears to be to be more adequate than the one predicted by the lexical theory. Sentence (28) below, based on examples discussed in Linebarger (1980) and Heim (1984), is a case in point.

(28) Every linguist who even read SYNTACTIC STRUCTURES was wearing blue jeans.

Note that (28) differs from (22) merely in the content of the matrix verb phrase. As expected, the sentence has a first reading in which it conveys that Syntactic Structures is the least likely thing for a linguist to read. This is the presupposition expected to arise from a logical form analogous to (24). Let us disregard this reading in the following and focus on the second reading, which for now can be characterized as a reading in which there is no presupposition that Syntactic Structures is the least likely thing for a linguist to read. The relevant observation is that this second reading, which is clearly perceived to be present, is also clearly perceived to be pragmatically deviant. The question is how the difference in content between (22) and (28) can give rise to such a difference in acceptability.

The scope theory provides an answer.[10] In this theory, the second reading of (28) is due to a logical form analogous to (27). Accordingly, the predicted scalar presupposition is the proposition that of all things under consideration, Syntactic Structures is the least likely thing to be such that every linguist who read it was wearing blue jeans. As Heim (1984) argues for similar cases, such a presupposition is bound to result in pragmatic deviance, for the likelihood of wearing blue jeans does not plausibly depend on which linguistics books one reads. Since the likelihood of being hired by a multinational corporation may well show such a dependence, the scope theory offers an explanation for the contrast between (22) and (28).

10 This insight is implicit in Heim (1984), who argues for the presence of covert even in certain negative polarity items.

The lexical theory, by contrast, does not provide such a straightforward account of the deviance of the second reading of (28). This is so because the lexical theory would credit the second reading to a logical form analogous to (26) and hence predicts that (28) carries the same presuppositions as (22). It is therefore not clear how to derive the contrast between (22) and (28) in this theory.

In summary, the puzzle is that neither of the two theories seems to provide a logical form for the second reading of (28) that is both syntactically well–formed and derives the intended interpretation. There are at least two possible conclusions to be drawn. First, one might conclude that the restrictions on covert movement are ill–understood and that logical forms like (27) should be considered well–formed after all. Second, one might conclude that the deviance of examples like (28) is not to be credited to an implausible presupposition, but rather to some other kind of restriction yet to be discovered.[11]

4. The second puzzle

Kadmon and Landman (1993) and Wilkinson (1996) discuss the example in (29) below, where even is embedded under the attitude predicate glad. In the reading of (29) that these authors have in mind, the sentence suggests that these tickets are not very good ones and hence are relatively easy to get.

(29) I'm glad we got even THESE tickets.

It is perhaps clear that this is a "second" reading in that it cannot plausibly arise from the standard even scoping within the embedded clause. Let us see, then, whether it can be derived in the two theories under consideration. In the scope theory, it should be due to the logical form in (30).[12]

(30) [even these tickets] λ_1[I am glad [we got t_1]]

As before, we are to ask whether the predicted interpretation of this structures is adequate and whether it satisfies independently motivated restrictions on well–formedness.

It is likely that (30) is no less well–formed than the logical form that Karttunen and Karttunen posit for the example in (9) above. The structure is predicted to carry the existence

11 It is conceivable that the deviance of (28) in the second reading is due to the combination of assertion and presupposition, rather than the presupposition per se. In pursuing this possibility, one should ask whether (28) is any less deviant in the first reading than in the second.

12 This logical form is inadequate in that it fails to capture that (29) intuitively quantifies over relevant tickets, rather than relevant individuals in general. The question is how the intonational prominence of THESE contributes to this restriction of the quantification domain. I refer the reader to Rooth (1985, 1992) for answers. For ease of presentation, I will stick to the oversimplified logical form in (30).

presupposition that there are tickets other than these which I am glad we got, and the scalar presupposition that these tickets are the least likely for me to be glad that we got. The scalar presupposition can be argued to be adequate. For why would these tickets be less likely to make me glad than those tickets? A plausible answer is that these tickets are better tickets than those, in accordance with the intuition reported above. Unfortunately, however, the predicted existence presupposition does not appear to be appropriate. I can only be glad that we got those tickets if we in fact got them. But (29) in the relevant reading most likely describes a situation where we did not get any tickets other than these.

This problem was pointed out in Wilkinson (1996), who does not interpret it as an argument against the scope theory, however, but takes it to be indicative of a complication in the calculation of presuppositions. Specifically, Wilkinson suggests that the factive presupposition triggered by glad is to be disregarded in the calculation of the presupposition triggered by even. Moreover, she assumes that subtracting the factive presupposition from the denotation of glad yields precisely the denotation of want. The existence presupposition predicted for (30) is then the proposition that there is something other than these tickets that I wanted us to get, which seems appropriate. The predicted scalar presupposition is that these tickets are the least likely for me to have wanted us to get.

I agree with Wilkinson that this scalar presupposition is adequate as well. However, it can be argued that her analysis depends on properties of (29) that are not shared by many other examples to which the theory is intended to apply. For instance, consider the example in (31) in an interpretation where it suggests that Syntactic Structures is an easy or elementary reading.

(31) I am glad they even read SYNTACTIC STRUCTURES.

According to Wilkinson's analysis, the scalar presupposition that is behind this reading should be the proposition that Syntactic Structures is the least likely thing for me to want them read. But this does not seem adequate. If Syntactic Structures is considered an elementary reading, it may even be the most likely thing for me to want them to read!

A perhaps even clearer case of the same kind is (32) below in an interpretation conveying that reading the paper is the least they should have done. Naturally, it would have been more desirable if they had both read and understood the paper.[13]

(32) I am glad they even READ the paper.

13 It is not obvious what the first argument of even is in this case. The question of course already arises in simpler example like They even READ the paper. Karttunen and Karttunen propose that in such cases even combines with the transitive verb. This would yield the desired interpretation, but see Rooth (1985) for a more plausible alternative.

In Wilkinson's account, this reading should be due to the scalar presupposition that reading the paper is the least likely thing for me to want them to do. Which would mean in particular that I am less likely to want them to read the paper than to want them to read and understand the paper. But this is unlikely to be correct. It is apparent that a proposition cannot be less likely to be true than a proposition that entails it. The chance of rain cannot be smaller than the chance of heavy rain. Moreover, the proposition that I want them to read and understand the paper logically entails the proposition that I want them to read it.[14] It then follows that the scalar presupposition that Wilkinson's account predicts for (32) is logically inconsistent, and hence does not account for the reading in question.

It is now apparent that Wilkinson's analysis works for (29) because in this case there happens to be no entailment relation between the propositions compared in terms of likelihood. I may want us to get these tickets without wanting us to get those tickets and vice versa. In (32), by contrast, the proposition expressed by the sentence is logically entailed by the one to which it is compared in terms of likelihood, yielding logical inconsistency. Sentence (31) is like (32) in the relevant respects, except that here the entailment is based on an additional premise established in the context, namely the premise that I cannot want them to read anything without also wanting them to read Syntactic Structures.

There are at least two possible conclusions to be drawn in the light of this problem. First, one might conclude that the calculation of presuppositions in cases of even under glad does not quite proceed in the way suggested by Wilkinson. It is conceivable that the calculation of the propositions compared in terms of likelihood does not use the denotation of want, but some other attitude function which does not yield inconsistency.[15] This might be because subtracting factivity from the denotation of glad does not exactly yield the denotation of want, or because adjusting the denotation of glad in the calculation of presuppositions involves more than merely subtracting factivity.

The second conclusion one might draw is that the scope theory fails to account for cases of even under glad and that an alternative analysis is needed. Let us see, then, whether the lexical theory provides such an alternative. Specifically, does the logical form in (31) derive the relevant reading of sentence (29)?

(33) I am glad [[even$_n$ these tickets] λ_1[we got t_1]]

Assuming as before that the presuppositions triggered by even survive the embedding, (33) is

14 This assumes that want denotes an entailment preserving function, a view defended against Asher (1987) in von Fintel (1999).

15 This would have to a be a function that does not preserve entailments among its arguments.

predicted to carry the existence presupposition that there are some tickets distinct from these that we did not get. This appears fully adequate since the sentence indeed suggests that we did not get those more desirable tickets. The scalar presupposition that (33) derives is the proposition that of the relevant tickets, these are the most likely for us to get. Since the bad tickets tend be those one is most likely to get, this presupposition appears to be appropriate as well.

However, while the logical form posited by the scope theory does seem to derive the relevant reading of (29), it is less clear that this logical form is well–formed. For it is known that sentences embedded under glad do not in general host negative polarity items. Kadmon and Landman (1993) mark the following examples as ungrammatical.

(34) * I'm glad I said anything.
(35) * I'm glad that I ever met him.

Assuming the theory of Ladusaw (1979), these facts suggest that glad does not denote an entailment reversing function. This is in fact the conclusion drawn by Kadmon and Landman (1993) and von Fintel (1999).

But matters are more complicated, for it is known that not all negative polarity items are equal. Kadmon and Landman observe that any is acceptable under glad if it is intonationally prominent. The phenomenon is illustrated in (36).

(36) I'm glad we got ANY tickets.

The lexical theory of second readings might now be defended as follows. There are two kinds of negative polarity items, weak ones like unstressed any and ever, and strong ones like stressed ANY. The theory of Ladusaw (1979) only describes the distribution of weak negative polarity items, that is, only weak negative polarity items are required to be in the scope of an entailment reversing function. Strong negative polarity items, by contrast, do have a somewhat different distribution and in particular are licensed under glad. Assuming, then, that even_n is a strong negative polarity item, the logical form in (33) should be well–formed.

This analysis is of course incomplete in that it leaves it open how the distribution of strong negative polarity items is to be described or explained. I will not attempt here to provide such a theory. I merely note that not any old theory of strong negative polarity items is appropriate. Krifka (1995) offers an account in which stressed ANY is in effect required to appear in the scope of an implicit operator with the semantics of standard even. It is apparent that this proposal leads back to the problems associated with the scope theory discussed above.

In summary, the analysis of even under glad is not obvious in either the scope theory or the lexical theory. Under the scope theory, the question is how the propositions which are compared in terms of likelihood are calculated. The lexical theory, on the other hand, relies on a theory of strong negative polarity items that is not available at this point.

5. Conclusions

The observations presented in this squib are potential challenges for both theories of "second" readings associated with even that have been proposed in the literature. However, no decisive argument for or against either theory has been made. Such an argument would have to rest on a number of additional premises that would have to be argued for at length, regarding issues like locality restrictions on covert extraction, the nature of pragmatic deviance, presupposition composition, and licensing of negative polarity items.

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