

On *even* in presupposition denials

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I. The puzzle: *Even* can be used in sentences that deny presuppositions, like (1B).

1. A: When did Radu quit smoking? (Radu smoked)
B: He didn't **even** smoke!

However, *even* can only be used in this way when it appears below negation, as shown in (2).

2. A: Did Kenji's wife come to the picnic? (Kenji has a wife, i.e. is married)
B: He isn't **even** married!
B': #He's **even** unmarried/a bachelor!

Even is truth-conditionally vacuous but introduces two presuppositions: a scalar presupposition that the prejacent (the sentence hosting *even*) is less likely than any other salient focus alternative, and an additive presupposition that there is an alternative besides the prejacent that is true (Karttunen & Peters 1979 et seq.). The asymmetry in (2) is mysterious because, on any theory of *even*, the B/B' responses should be both truth-conditionally and presuppositionally equivalent. I show that this asymmetry is not reducible to independent properties of *even* or presupposition denial, and is instead restricted to sentences that share both of these ingredients.

II. The proposal: I propose that the asymmetry reflects a failure of the additive presupposition of *even* in the positive but not the negative sentences. I argue that the salient focus alternatives for *even* in dialogues like (2) carry the trigger for the presupposition that the prejacent denies; for example, the alternatives in (2) will involve the propositions made salient by Speaker A's question: {*Kenji's wife came to the picnic*, *Kenji's wife didn't come to the picnic*}. These alternatives will be presupposition failures if the prejacent *He isn't married/He is unmarried* is true, meaning that the additive presupposition of *even* cannot be satisfied (3,4).

3. He isn't even married!
 - a. LF: even_c [NEG [he is married]_F]
 - b. $C = \{\text{NEG} [\text{he is married}], \text{NEG} [\text{his wife came to the picnic}], \text{NEG} [\text{his wife didn't come to the picnic}]\}$
 $= \{\textit{He isn't married}, \# \textit{His wife didn't come to the picnic}, \# \textit{His wife came to the picnic}\}$
4. #He's even unmarried!
 - a. LF: even_c [he is unmarried]_F
 - b. $C = \{\text{he is unmarried}, \text{his wife came to the picnic}, \text{his wife didn't come to the picnic}\}$
 $= \{\textit{He isn't married}, \# \textit{His wife came to the picnic}, \# \textit{His wife didn't come to the picnic}\}$

I argue that the difference between the positive and negative cases is that the latter license a parse where the presupposition is negated within the alternatives. This is implemented via a meta-assertion operator *A* (Bochvar 1939), which is independently argued to be present in presupposition denials (Beaver & Krahmer 2001); this operator maps presupposition failures to false, as if the presupposition had been asserted (cf. Heim's 1983 local accommodation). When placed under negation, it allows presuppositions triggered below it to be negated instead of projected. In negative cases like (2B), having an *A* operator below negation (5a) allows the presuppositions triggered in the alternatives to be negated; this yields propositions that will be true whenever the prejacent is true (5b), thus satisfying the additive presupposition of *even*.

5. He isn't even married!
 - a. LF: even_c [NEG [A [he is married]_F]]
 - b. $C = \{\text{NEG} [A [\text{he is married}]], \text{NEG} [A [\text{his wife came to the picnic}]], \text{NEG} [A [\text{his wife didn't come to the picnic}]]\}$
 $= \{\textit{It's not true that he is married}, \textit{True! It's not true that he has a wife and she came to the picnic}, \textit{True! It's not true that he has a wife and she didn't come to the picnic}\}$

In positive cases like (2B'), the alternatives do not contain negation, and so including an *A* operator (6a) will result in the problematic presuppositions being asserted, not negated. This yields alternatives that are false when the prejacent is true (6b), leaving the additive presupposition of *even* unsatisfied.

6. #He's even unmarried!
 a. LF: even_C [A [he is unmarried]_F]
 b. C = {A [he is unmarried], A [his wife came to the picnic], A [his wife didn't come to the picnic]}
 = {*It's true that he is married*, ^{False!}*It's true that he has a wife and she came to the picnic*, ^{False!}*It's true that he has a wife and she didn't come to the picnic*}

Thus, this analysis derives the asymmetry in (2) from the interaction of presupposition denial with the semantics of *even*: the additive presupposition is introduced by *even*, and it is only in presupposition-denying contexts that i) the salient alternatives will contain triggers for a presupposition that the prejacent denies, and ii) a parse including an A operator will be licensed.

III. Possible objections: This analysis relies on a failure of *even*'s additive presupposition when the alternatives are mutually exclusive. However, this presupposition has been claimed to not be active when the alternatives are mutually exclusive (von Stechow 1991, Rullmann 1997, Crnič 2011, a.o.), as in (7); if John only drank water, he did not drink anything else.

7. [At yesterday's party, people stayed with their first choice of drink. Bill only drank WINE, Sue only drank BEER, and]
 John even₁ only₂ drank [WATER]_{F1,F2} (Krifka 1992: 22)

I show that sentences like (7) are only acceptable to the extent that the context and prosody license an interpretation where the alternatives are not in fact mutually exclusive. For example, in (6) the context makes salient the non-mutually exclusive set of alternatives {*John only drank water, Bill only drank wine, Sue only drank beer*}, consistent with a second focus on the subject, rather than the mutually exclusive set {*John only drank water, John only drank wine, John only drank beer*}, with focus only on the object. I show that when the context and prosody are restricted so that this kind of interpretation is ruled out, as in (8), the result is infelicity.

8. [At yesterday's party, John stayed with his first choice of drink. But you'll never guess what he chose.]
 #He even₁ only₂ drank [WATER]_{F1,F2}

This is exactly what we should expect if the additive presupposition of *even* is active; thus, the arguments raised against this presupposition turn out to be an argument in favour of it.

IV. Crosslinguistic extensions: I show that the puzzling asymmetry is not restricted to English; it is reproduced for particles in Greek (*kan*), German (*überhaupt*), and Russian (*daže*, and for some speakers *voobščē*), all of which I claim involve an *even*-like component. The analysis above predicts that if a language has an expression with the scalar but not the additive component of *even*, it will be acceptable in both positive and negative presupposition denials. I argue that Hebrew *bixlal* is such an item; it is compatible with mutually exclusive alternatives (9), suggesting that it lacks an additive component, and it does not exhibit our asymmetry (10).

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| <p>9. [B is a journalist doing a feature on bronze medallists; A is suggesting people for B to interview.] A: Mary won a bronze medal. B: lo! hi bixlal zaxta be-medaljat [KESEF]_F NEG she BIXLAL won in-medal silver 'No! She <i>bixlal</i> won a silver medal.'</p> | <p>10. A: Did Kenji's wife come to the picnic? B: Hu bixlal lo nasuj. he BIXLAL NEG married 'He isn't <i>bixlal</i> married!' B': Hu bixlal ravak. he BIXLAL bachelor 'He's <i>bixlal</i> a bachelor!'</p> |
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V. Conclusions: This talk claims that the asymmetry in (2) results from *even*'s additive presupposition being satisfied in negative but not positive presupposition denials, in part because the alternatives contain the trigger for the presupposition that the prejacent denies. According to this analysis, a presupposition triggered in a focus alternative can have an effect on the acceptability of a sentence that does not itself contain the trigger for that presupposition. This has consequences for how we think about the status of focus alternatives; it is hoped that the present work will provide a foundation for further investigations in this area.