

EVEN and Biased Questions: The Case of Spanish *Siquiera*
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Background. When *even* associates with a low scale-endpoint in a question, as in (1), the question is biased towards a negative answer. Guerzoni 2004 [A] shows that the scope theory of *even* (ST) [B,C] can derive this bias. The ST claims that *even* always triggers the presupposition that its associate is the most unlikely alternative under discussion, as in (2) (the ‘hard’ presupposition.) In declaratives, the ‘easy’ presupposition of sentences like (3) results from giving *even* scope over a DE (scale reversal) expression. Guerzoni 2004 extends this account to questions. Under her proposal, a (yes/no) question contains a silent *whether*, which determines its positive and negative answers. When *even* scopes under *whether*, the question in (1) denotes (4a); when *even* scopes over *whether*, it denotes (4b). Both answers in (4a) trigger the ‘hard’ presupposition in (2) (since negation is a ‘hole’ for presupposition projection.) Thus, neither can be appropriately uttered in a natural context. The negative answer in (4b), however, triggers the ‘easy’ presupposition in (3). According to Guerzoni 2004, the question in (1) is biased, because a natural context can only satisfy the presupposition of its negative answer.

- (1) We know that Peter can’t speak Chinese or Korean, but . . . Can he even speak ENGLISH?
- (2) # Peter can even speak ENGLISH. LF: $even_{C(st,t)}$ [Peter can speak [English]_F]
‘Hard’ press.: that Peter speaks English is the most unlikely p in C.
- (3) Peter cannot even speak ENGLISH. LF: $even_{C(st,t)}$ [not [Peter can speak [English]_F]]
‘Easy’ press.: that Peter does not speak English is the least likely p in C
- (4) a. { even [Peter can speak [English]_F], not [**even** [Peter can speak [English]_F]] }
b. { even [Peter can speak [English]_F], **even** [not [Peter can speak [English]_F]] }

Claim. This paper examines the behavior of the Spanish scalar additive particle *siquiera*, which, like *even*, conveys a negative bias in questions. The paper argues that the negative bias induced by *siquiera* cannot be derived by resorting to the ST, as above. A domain widening analysis of the bias along the lines of [D] is endorsed instead.

The argument. *Siquiera* is usually found in association with *ni*, a negative concord element with the semantics of Rooth’s NPI *even* (5) [E,F,G] (adding *siquiera* to *ni* is like adding *even* to a minimizer: it does not result in a meaning change (6).) It is also naturally found by itself in questions (7-8), and in a variety of modal environments ((9-11), for instance.) In all these cases, *siquiera* associates with a low scale endpoint and triggers an ‘easy’ presupposition.

- (5) a. No vino Juan b. No vino ni Juan. c. No vino ni siquiera Juan.
Not came Juan Not came NI Juan Not came NI SIQUIERA Juan
‘Juan didn’t come.’ ‘Not even Juan came.’ ‘Not even Juan came.’
- (6) John didn’t (even) lift a finger to help Mary.
- (7) Nunca he podido entender que alguien pida ayuda justo después que ya se han dado muy buenas soluciones al caso. ¿Hiciste siquiera el intento de probar estas soluciones?
(<http://www.forosuse.org/forosuse/archive/index.php/t-9083.html>)
‘I’ve never understood why someone asks for help right after he has been given very good solutions to the issue. ¿Have you made an effort to try these solutions at all?’
- (8) ¿Hace falta (siquiera) presentarlo (siquiera)? Un sombrero, una chupa, un látigo, una musiquilla inconfundible . . . 20 años después, Indiana Jones . . .
(www.cineol.net/noticias.php?newsid=5603)

‘Do we even need to introduce him? / Do we need to introduce him at all? A hat, a jacket, a whip, an unmistakable tune, twenty years later, Indiana Jones . . .’

- (9) Según su medico, Pedro tiene que ir a la piscina siquiera una vez por semana.
‘In view of what his doctor wants, Pedro has to go to the swimming pool at least once per week.’
- (10) Los celestes necesitan ganar siquiera por un gol para empatar el marcador global.
(www.diariodemexico.com.mx)
‘The blue ones need to win at least by one goal to get even in the global results.’
- (11) Es necesario, siquiera una vez por año, hacer un Ayuno Científico.
(nireblog.com/es/tags/vidaicuerpouniversal/dientes)
‘It is necessary to do a ‘scientific fast’ at least once a year.’

In questions, *siquiera* conveys a negative bias, much like *even* does when it associates with a low scale-point. This could be derived *à la* Guerzoni 2004 by assuming that *siquiera* combines with a silent *even* that triggers a hard presupposition (like minimizers [H]). *Siquiera* would require that its associate denote a low scalar element. This analysis, however would not capture the behavior of *siquiera* in cases like ((9)-(11).) Consider (9). The sentence is appropriate in a context in which it is more likely for Pedro to go swimming once per week than more often. Scoping *even* under the modal would trigger the opposite presupposition. Scoping *even* over the modal would trigger the presupposition that the proposition that Pedro has to go swimming once per week is more unlikely than the proposition that he has to go swimming more than once per week. The sentence, however, is perfectly natural in a context in which it is known to be false that Pedro has to go swimming more than once per week (and, thus, the likelihood of the alternatives is already minimal.)

A ‘domain widening’ analysis. We conclude by developing an analysis of *siquiera* along the lines of van Rooy 2003. We assume an Alternative Semantics for focus [E]. At LF, *siquiera* operates over a propositional constituent, and imposes two requirements on the set of focus alternatives of its argument (12). We assume that at the topmost position, a silent operator makes use of the focus alternatives, as in [I]. This operator brings in the ‘settledness’ condition contributed by *even* in van Rooij’s 2003 analysis: in the case of assertions, it requires that all alternatives in the focus semantic value are already known to be true or known to be false; in the case of questions, it requires that all questions that can be formed by feeding each alternative proposition into a yes/no question operator be settled. The negative bias in questions is derived as in van Rooy 2003: all questions about the stronger alternatives are assumed to have true negative answers. The extremity condition requires the question that contains *siquiera* to be false, as well. As in Krifka’s analysis of minimizers, this condition makes sure that *siquiera* is deviant in unembedded contexts (13).

- (12) $\llbracket \llbracket \text{siquiera } [\dots [A]_F \dots] \rrbracket^f$ is defined iff (a) and (b) below are met. When defined $\llbracket \llbracket \text{siquiera } [\dots [A]_F \dots] \rrbracket^f = \llbracket [\dots [A]_F \dots] \rrbracket^f$
- a. Minimality: All p in $\llbracket [\dots [A]_F \dots] \rrbracket^f$ entail $\llbracket [\dots [A]_F \dots] \rrbracket^o$
- b. Extremity: The probability that $\llbracket [\dots [A]_F \dots] \rrbracket^o$ is true and no p in $\llbracket [\dots [A]_F \dots] \rrbracket^f$ is true is no greater than the probability that $\llbracket [\dots [A]_F \dots] \rrbracket^o$ is true and some p in $\llbracket [\dots [A]_F \dots] \rrbracket^f$ is true. [See [I], p.239]
- (13) * Pedro bebió siquiera una gota de agua.
Pedro drank SIQUIERA a drop of water

References. [A] Guerzoni, E. (2004) Even-NPIs in Yes/No Questions *NALS* 12. | [B] Karttunen and Peters (1979) Conversational Implicature. | [C] Wilkinson, K. (1996) ‘The Scope of *Even*’, *NALS* 4(3). | [D] Van Rooy, R. (2003)

Negative Polarity Items in Questions. *JoS* 20(3). | [E] Rooth, M. (1985) *Association with Focus*, Ph. D. diss. | [F] Herburger, E. (2003) A note on Spanish *Ni siquiera, even*, and the analysis of NPIS, *Probus* 15. | [G] Guerzoni, E. (2003) *Why Even Ask?* PhD diss. MIT. | [H] Heim, I. (1984) A Note on Negative Polarity and DE-ness. | [I] Krifka, M. (1995) The Semantics and Pragmatics of Polarity Items. *Linguistic Analysis* 25