## Contrafactivity and mirativity in Spanish: remarks on creerse and pensarse

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- 1. Introduction. This presentation analyses the semantico-pragmatic behavior of Spanish predicates creerse 'to believe' and pensarse 'to think' (formed from the propositional attitude verbs creer and pensar with the clitic se). It has been proposed that these predicates are contrafactive; that is, that they presuppose the falsity of their complement (Anvari et al. 2019, Maldonado and Percus 2024). In contradistinction, we advance a novel account according to which creerse and pensarse are only weakly contrafactive (see Glass 2025), to wit, they update the Common Ground so that it is *compatible with* the falsity of their complement. The strong contrafactive reading is obtained through pragmatic inference from the weak contrafactive meaning and the assumption that the speaker is opinionated about the issue. We contend that this weak contrafactive requirement is introduced not as a presupposition (a requirement on the Common Ground prior to the assertion) but as a conventional implicature (an automatic update to the Common Ground following the assertion). This distinguishes creerse and pensarse from other alleged weakly contafactive expressions like Chinese attitude verb yiwéi, which has been analysed in terms of postsuppositions (Glass 2023). Finally, we show that creerse, unlike pensarse, can display evidential readings when it appears under negation, and we argue that this behavior accounts for why only the former can exhibit "non-contrafactive interpretations" in such contexts.
- **2. Data.** A sentence of the form x se  $\{cree/piensa\}$  que p typically triggers the inference that pis false.
  - Juan se {cree/piensa} que lo ascendieron. 'Juan SE {believes/thinks} that he was promoted'  $\rightarrow$  Juan was not promoted

While this is generally the case, in contexts of "explicit ignorance", this inference does not arise.

- Juan se {cree/piensa} que lo ascendieron, pero yo no estoy tan seguro.
  - 'Juan SE {believes/thinks} that he was promoted, but I am not so sure.'
  - $\not \rightarrow Juan \ was \ not \ promoted$
  - → Juan may have been promoted or not

Importantly, the inference of falsity in (1) cannot be canceled without contradiction, but it can be reinforced without redundancy.

- a. # Juan se {cree/piensa} que lo ascendieron, y de hecho, lo ascendieron. (3)'Juan SE {believes/thinks} that he was promoted, and in fact, he was.'
  - b. Juan se {cree/piensa} que lo ascendieron, pero no lo ascendieron. 'Juan SE believes/thinks that he was promoted, and in fact, he was not.'

Another property of this inference is that it projects through entailment-suspending operators, e.g., questions (4a) or modals (4b).

- a. ¿Juan se cree/piensa que lo ascendieron? 'Does Juan SE believe/think that he was promoted?'
  - b. Tal vez Juan se cree/piensa que lo ascendieron.
    - 'Maybe Juan SE believes/thinks that he was promoted.'
    - $\sim$  Juan was not promoted

As for negation, Maldonado and Percus (2024) observe that occurrences of *creerse* under this operator trigger an ambiguous interpretation: it may license either the inference that  $\neg p$  (5b) or that p (5c). We note that this kind of sentence may also be used felicitously in contexts that are unsettled about whether p.

(5) Juan no se cree que lo ascendieron.

'Juan does not se believe that he was promoted'

- a.  $\rightarrow$  Juan may have been promoted or not
- b.  $\rightarrow$  Juan was not promoted
- c.  $\sim$  Juan was promoted

Surprisingly, this ambiguity does not arise with *pensarse*, for which only the first two readings are available.

- (6) Juan no se piensa que lo ascendieron.
  - 'Juan does not se think that he was promoted'
  - a.  $\rightarrow$  Juan may have been promoted or not
  - b.  $\rightsquigarrow$  Juan was not promoted
  - c.  $\not\sim$  Juan was promoted
- **3. Analysis.** We contend that *creerse* and *pensarse* do not presuppose the falsity of their complement, but rather trigger a weaker inference. Following Glass (2025), we propose that the so-called "contrafactive presupposition" is better understood as a conventional implicature stating that the Common Ground is *compatible with*  $\neg p$ . This inference can be strengthened to the statement that the CG entails  $\neg p$  in contexts where it is assumed that the speaker is opinionated concerning  $p(B_{s_c}(p) \vee B_{s_c}(\neg p))$  Unlike the strong contrafactive hypothesis, such an approach can account for why these predicates can be used in contexts which do not entail  $\neg p$ , but are in turn unsettled w.r.t. whether p, e.g., (2).

In addition, we show that the proposal makes good for the projection facts stated above, as well as for the (im)possibility of cancelling and reinforcing the inference. Roughly put, the analysis is as follows:

(7) [se cree/piensa]
$$^w = \lambda p.\lambda x. \forall w'[w' \in Dox(x, w) \to p(w') = 1] \bullet \exists w \in c: p(w) = 0$$

As for the puzzling behavior of *creerse* and *pensarse* under negation, our view accounts for the first two readings, but in principle it forecloses the third one. At this point, the contrast between the two verbs becomes crucial: we argue that *creerse* allows the interpretation that the complment is true only because it receives a mirative interpretation, which is impossible with *pensarse*.

- (8) a. Juan ganó la carrera, todavía no se lo cree. 'Juan won the race, and he still can't believe it.'
  - b. # Juan ganó la carrera, todavía no se lo piensa.

The point can be bolstered by noting that such an interpretation is not available when the added mirative interpretation is out, e.g. because the attitude holder actually does not believe the complement:

(9) # Los terraplanistas no se creen que la Tierra es redonda. 'Flat-Earthers do not SE believe that the Earth is round.'

References • Anvari, A., Maldonado, M., and Ruiz, A. S. (2019). The puzzle of reflexive belief construction in Spanish. In *Proceedings of Sinn und Bedeutung*, volume 23, pages 57–74. • Glass, L. (2023). The negatively biased Mandarin belief verb yĭwéi. *Studia Linguistica*, 77(1):1–46. • Glass, L. (2025). Attested versus unattested contrafactive belief verbs. *Semantics and Pragmatics*, 18(8). • Maldonado, M. and Percus, O. (2024). Another look at contrafactive predicates: the case of spanish *creerse*. Talk presented at Sinn und Bedeutung 29, September 17-19, 2024.