

## A compositional analysis of superlative minimizers in Spanish

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This paper deals with superlative minimizers (SMs henceforth) in Spanish. SMs are superlative DPs which work as polarity-sensitive minimizers, i.e., minimal-quantity-denoting expressions licensed only in downward-entailing contexts (cf. Fauconnier 1975, Bosque 1980, Tovená & Jayez 1999):

- (1) a. \*(Nunca)       hubo            la más mínima    dud  
          never         there.was    the more minimum   doubt  
          ‘There was never the slightest doubt’
- b. \*(No)    hemos                    cometido    el más ligero  
          error  
          not   have.1PL    committed    the more light  
          mistake  
          ‘We have not made the slightest mistake’
- c. Lo hizo \*(sin)       el menor            interés  
          ACUS.3SG did.3SG   without the less    interest  
          ‘He/she did it without the slightest interest’

Contrary to regular superlatives, SMs do not have a referential meaning (e.g., the superlative in (1a) cannot mean ‘the smallest doubt in a contextually salient set’), but a quantity or existential meaning that can be paraphrased by an indefinite NPI, so (1a) amounts to say *Nunca hubo ninguna duda* ‘There was never any doubt’. The non-referential/quantity meaning of SMs allows them to appear in existential contexts (cf. (1a)), thus (at least apparently) violating Milsark’s (1977) Definiteness Effect.

Fauconnier (1975) argued that this meaning is the result of the calculation of inferences on pragmatic scales, where the superlative occupies one of the boundaries and it is pragmatically implied by all other alternatives (see also Israel 1996, 2011). Then, by negating the predicate where the superlative is embedded, we reverse the inference direction and we deny all other alternatives, thus getting the quantity meaning (cf. (2b)):

(2)

- a.  $\lambda x.\text{make}(x,\text{the\_slightest\_mistake}) < \dots < \lambda x.\text{make}(x,\text{the\_biggest\_mistake})$
- b.  $\neg(\lambda x.\text{make}(x,\text{the\_slightest\_mistake})) > \dots > \neg(\lambda x.\text{make}(x,\text{the\_biggest\_mistake}))$

However, the quantity meaning of SMs cannot be cancelled, as opposed to the existential meaning provided by other superlatives in the context of negation, what suggests that this meaning is not pragmatically derived for the former (contra Fauconnier), but rather semantically driven:

(3)

- a. No cometió el más mínimo error, (#pero cometió otros más graves)  
not committed.3sg the more minimum mistake but  
committed other more serious

'He/she didn't make the slightest mistake, (#but he/she made more serious ones)'

- b. No resolvió el problema más simple, pero resolvió otros más complicados  
not solved.3sg the problem more simple, but solve  
other more complicated

'He/she didn't solved the simplest problem, but he/she solved more complicated ones'

The main goal of this paper is to investigate how it is possible to achieve the meaning of SMs compositionally, taking into account some unnoticed properties of these expressions in Spanish. First, it is remarkable that the adjective of SMs (typically *mínimo* 'minimum', but also other smallness adjectives as *leve* 'light', *ligero* 'slight',

*pequeño* ‘small’ or the syncretic form *menor* ‘least’) occupies the prenominal position in Spanish, a marked position for superlative adjectives and modifiers in general (cf. (4)). Secondly, not every type of noun is licensed in an SM; while abstract nouns as *error* ‘mistake’ or *interés* ‘interest’ are admitted, concrete nouns as *sandalia* ‘sandal’ or *agua* ‘water’ are rejected (cf. (5)). Finally, SMs do not license superlative codas, namely those expressions restricting the frame of comparison (cf. (6)).

(4) \*No había                    la duda            más {mínima/ligera/leve}  
       not there was            the doubt        more {minimum/slight/light}

‘There wasn’t the slightest doubt’

(5) \*No había                    la más mínima        {sandalia/agua}  
       not there.was            the more minimum {sandal/water}  
       Intended: ‘There wasn’t the slightest {sandal/water}’

(6) No hubo                    el más mínimo problema            (\*del mundo)  
       not there.was            the more minimum problem        of-the world  
       ‘There wasn’t the slightest problem (\*of the world)’

I propose that SMs are a special type of Q(uality)-superlatives (cf. Hackl 2009, Solt 2011, Wilson 2018). Specifically, I assume that smallness adjectives in SMs are Q-adjectives which only measure over an intensity scale (I will refer to them as *I(intensity)-modifiers*). Intensive measurement can be distinguished from extensive measurement in that only the latter implies a measurement over space or time (cf. Tovena 2001, 2003). On the contrary, intensive measurement of a property points out at different degrees of the same property. Thus, I-modifiers have a double nature: on the one side, they are gradable adjectives, as the possibility of being quantified by the superlative shows; on the other side, they are scalar modifiers, in so far as they only modify gradable nouns, i.e., nouns that can be intensively measured.

This proposal straightforwardly explains why SMs only select for a very restricted type of noun: while *interés* ‘interest’, *paciencia* ‘patience’, *error* ‘mistake’ or *duda* ‘doubt’, among others, are gradable, *coche* ‘car’, *árbol* ‘tree’, *petróleo* ‘oil’ and *agua* ‘water’ are not. That quality-denoting nouns (e.g., *interest*, *patience*, *respect*...) are gradable has been previously proposed by several authors (cf. Tovena 2001, 2003; Francez & Koontz-Garboden 2015, 2017; Hinterwimmer 2020). I propose that simple eventuality-denoting nouns (e.g. *mistake*, *doubt*, *problem*...) can be also analyzed as

gradable in so far as they can be modified by scalar modifiers (e.g., minimizers as in a *slight* {*mistake*/\**car*}, maximizers as in *an absolute* {*mistake*/\**car*}) and they have a RELATIVE EXISTENCE: the smaller a mistake is, the less of a mistake it is; on the contrary, however small a car might be, it will never be less of a car.

Since the superlative quantifies a Q-adjective, as a result we get a Q-superlative. However, the quantity denoted by the SM is not an extensive one (cardinality for count nouns or amounts of stuff for mass nouns), but an intensive quantity. In other words, the superlative in (1a) does not denote a minimal quantity of mistakes (this would be ‘one mistake’ in a cardinality scale), but ‘a minimal degree of mistakenness’. This also explains why superlative codas are not admissible in SMs: these elements denote sets of individuals restricting the frame of comparison at the level of the NP (cf. Gutiérrez- Rexach 2010). However, in the case of SMs the superlative does not range over individuals, but over degrees. In other words, while in regular superlatives the comparison ranges over individuals, in SMs we compare degrees (of interest, patience, mistakenness, doubtness...).

The above proposal can be formalized as follows: I assume that I-modifiers (and their superlative shape) are merged in the specifier of a functional projection FP from where they access to the gradable property which defines the noun (e.g., *mistakenness* in the case of *mistake*):

(7) [DP el [FP [DegP más [AP mínimo]] [F' F [NP N]]]]

So, I-modifiers do not modify a property of individuals, but a property of degrees of N-ness. Also, when the superlative quantifies the I-modifier, the comparison class is made up of degrees. Superlatives calculate their reference from the elements in the comparison class, so the reference of an SM is not an individual, but a degree, the unique degree of N-ness such that there is no other bigger degree. Thus, the quantity meaning of SMs is straightforwardly explained, since they denote degrees. Importantly, this quantity meaning is not extensive, but intensive, in the sense that we are not measuring amounts, but degrees of intensity or N-ness. Also, under this proposal the quantity meaning of SMs is not pragmatically derived as in Fauconnier’s approach, but it is compositionally derived through the meanings of the elements composing the superlative.

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