Superlative Minimizers as Weak Definites: A study on Spanish

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Abstract

This paper deals with a hitherto little studied type of superlative, so-called 'superlative minimizers', which in Spanish take the form *el más mínimo N* 'the slightest N'. Several tests show that these superlatives are non-specific or non-referential, despite their necessarily definite shape. The semantic properties of these expressions cannot be accounted for using the usual tools in theories on definiteness or quantity superlatives. The aim of this work is to provide a compositional analysis that explains several properties of these superlatives, particularly their non-specific nature and restrictions on the type of noun they admit. Assuming a kind-based semantics for nouns and a state-based theory on gradability, I propose that superlative minimizers express uniqueness over state-kinds, thus giving rise to a non-specific meaning of the DP and a quantity meaning, since state-kinds are scalar-ordered in the extensional domain of nouns. As a consequence, this work straddles two lines of research: on the one hand, it broadens our knowledge on quantity superlatives (cf. Hackl 2009, Solt 2012, a.o.) with a new type subject to previously unstudied characteristics; on the other, SMs are

a type of the much-studied weak definites (cf. Aguilar-Guevara & Zwarts 2010, Abbott 2014, a.o.).

Keywords: superlatives, superlative minimizers, quantity-superlatives, definiteness, weak definites.

1. Introduction

Milsark's (1974, 1977) famous generalization, known as the Definiteness Effect, states that only indefinite DPs are acceptable in existential contexts. However, it has been noted in the literature that superlatives, which are necessarily definite, avoid this generalization under certain conditions (cf. Fauconnier 1975, Rando & Napoli 1978, Hawkins 1978, Szabolcsi 1986, Lumsden 1988, Heim 1999, a.o.). In Spanish, this phenomenon has not been deeply studied, although Leonetti (1999: 48) and Fábregas (2018: 34) provide the following examples, respectively:¹

- a. No había el más mínimo rastro de su paso por allí. not there.was the more minimal trace of his passage for there 'There wasn't the slightest trace of his passage there.'
 b. No hay el menor problema.
 - not there is the least problem 'There isn't the slightest problem.'

Although the authors do not explain thoroughly why these cases avoid the Definiteness Effect, they point out that the origin of the mismatch is that superlative DPs in (1) do not have the meaning of regular definites. Thus, Leonetti observes that "[the superlative in (1a)] works as an NPI, namely, it requires the presence of negation and thus it is not a prototypical definite expression" (1999: 48).² Regarding (1b), Fábregas frames this superlative in a group of "superlatives used to describe the quantity of something that is involved in the statement" (2018: 34) and he adds that the existence of that quantity "does not have a specific referent" in itself (2018: 35). These observations indicate that the superlatives in (1), which I will refer to as **superlative minimizers**³ (SMs henceforth), are non-specific or non-referential, in the sense that they do not denote a specific and identifiable individual in the context.

SMs have been under-researched in the literature (although they have not been completely unnoticed; cf. Fauconnier 1975, Tovena & Jayez 1999, Delgado 2020). The quantity meaning referred by Fábregas (already noted by Fauconnier 1975) might be paraphrased with an existential that, under negation, means 'any' (cf. (2b)). On the contrary, the non-specific meaning prevents us from paraphrasing the superlative as in (2c), with the reading of specific superlatives:

¹ All examples in the paper are from Spanish unless otherwise indicated.

² The translation is mine.

³ I will employ the term *minimizer* as used in the polarity sensitivity literature (cf. Vallduví 1994; Tubau 2016, 2018; a.o.), where it refers to a minimal-amount-denoting NP that is sensitive to negative environments, as *a damn* in *He doesn't give a damn*. The term will not be used, then, with the meaning given in degree semantics, where minimizers are degree modifiers which select for a lower-closed scale, e.g., *slightly* or *a little* (cf. Kennedy 2007, Sassoon 2011, Bogal-Albritten 2012; a.o.). The latter will be relevant in our analysis, so for sake of clarity I will call them *diminishers*, following Bolinger's (1972) terminology.

(2) a. No hubo el menor error. not there.was the least mistake 'There wasn't the slightest mistake.'
b. → 'There wasn't any mistake.'
c. → #'There wasn't the only mistake that is smaller than any other mistake.'

Besides their acceptability in existential contexts, several tests and properties show that SMs do not behave as regular definites, but rather as non-specific expressions. The most remarkable one is that SMs, as previously mentioned, are NPIs, which are typically indefinite (cf. Chierchia 2013). In Chierchia's words, "NPIs tend to be indefinites. There is no word that means 'two' or 'three' and is restricted to DE [downward-entailing] environments the way *any* or *ever* are" (Chierchia 2013: 169). As can be seen in the following examples, removing negation leads to ungrammaticality, what proves that SMs are NPIs in the strict sense:⁴

- (3) a. *(No) hubo el más mínimo error. not there.was the more minimal mistake 'There was *(not) the slightest mistake.'
 b. *(Nunca) ha tenido la menor paciencia.
 - never have.3SG had the least patience 'She/he *(never) had the slightest patience.'

Secondly, contrary to regular definites, SMs do not license anaphora, something that we would expect in case they had a specific reference (cf. Leonetti 1999, Fábregas 2019). Thus, SMs cannot be the antecedent of the anaphoric pronoun *lo* in Spanish, which is always specific:

(ii) El más mínimo detalle puede marcar la diferencia. the more minimal detail can.3SG make the difference '(Even) the slightest detail can make a difference.'

In fact, *mínimo* has multiple values in Spanish (cf. Delgado 2023: 111-147). Importantly, the value in (i) does not correspond to the one of SMs, but to a restrictive meaning similar to 'very small'. As a matter of fact, the DegP in (i) is acceptable—and even better—in postnominal position, as is usual with restrictive modifiers in Spanish (e.g., *el error más mínimo*). However, this is not an option for SMs, which require prenominal position of the DegP. Furthermore, the superlative in (i) does not pass any of the several tests for SMs outlined in this section, since it has a specific meaning.

Regarding (ii), this is a genuine case of SM. Nevertheless, it must be noted that the SM has a free choice (FC) reading here, so it is paraphrasable with *any detail* ('all details'). This behavior resembles SMs with *any*. However, FC-SMs will not be studied in this work, given that they show some little differences with respect to NPI-SMs.

⁴ An anonymous reviewer points out the following counterexamples:

 ⁽i) Cometimos el más mínimo error y perdimos el partido.
 made.1PL.PST the more minimal mistake and lost.1PL.PST the game
 'We made the {slightest/more minimal} mistake and lost the game.'

- (4) a. Rita no cometió [el menor error]_i. #Lo_i cometió Gonzalo. Rita not committed.3SG the least mistake LO committed.3SG Gonzalo 'Rita didn't make [the slightest mistake]_i. #Gonzalo did it_i.'
 b. No tengo la más mínima duda. #La tiene Ana.
 - not have.1SG the more minimal doubt LA have.3SG Ana 'I haven't [the slightest doubt]_i. #Ana has it_i.'

Furthermore, SMs do not license PP—restrictors, namely PPs that explicitly restrict the comparison class of the superlative. As noted by Farkas and Kiss (2000: 438), these elements force an absolute or referential reading and precludes us from getting the so-called comparative reading (although see Section 2.1 for PP-restrictors related to the comparative reading in Spanish).⁵ Since these restrictors are not compatible with SMs, it is suitable to think that these do not have a referential meaning:

- (5) a. No hay el más mínimo interés (*de todos). not there is the more minimal interest of all 'There isn't the slightest interest (*of all).'
 b. No tiene el más mínimo problema (*de todos). not have.3sG the more minimal problem of all
 - not have.3SG the more minimal problem of a 'She/he hasn't the slightest problem (*of all).'

Also, while definite, superlative DPs can be headed by possessives (cf. (6)). However, this is not an option in the case of SMs. This again suggests that the extensional domain of SMs is not subject to restriction, given their non-specific nature. Thus, the only admissible determiner in an SM is the definite article (cf. (7)):

(6)	a. Ese fue <i>tu</i> error más grave.
	that was your mistake more serious
	'That was your most serious mistake.'
	b. Su interés más desmedido estaba en la empresa.
	his interest more excessive was in the company
	'His most excessive interest was in the company.'
(7)	a. *No cometió su más mínimo error.
	not committed his more minimal mistake
	Intended: 'She/he did not make her/his slightest mistake.'
	b. *Nunca he tenido <i>mi</i> más mínimo interés.
	never have.1sg had my more minimal interest
	Intended: 'There was never my slightest interest.'

Finally, it is a well-known fact that in Spanish mood choice in a sentential modifier depends on the specificity of the modified NP (cf. Fábregas 2019). While specific NPs select for indicative, non-specific ones select for subjunctive. When possible, this test shows that SMs pattern with non-specific expressions:⁶

⁵ I will come back on the absolute/comparative distinction in the Section 2.

⁶ We can assume that the subjunctive licenser in (8) is negation. However, SMs present the same behavior in the absence of NPI licensers, as is the case when they have a FC reading (see footnote 4):

- (8) a. No hay la más mínima posibilidad de que {*puede/pueda} lograrlo. not there.is the more minimal possibility of that can.IND/can.SBJV get.it
 'There is not the slightest chance that he can achieve it.'
 - b. No hemos encontrado la menor sospecha de que {*ha/haya} not have.1PL found the less suspicion of that have.IND/have.SBJV robado.
 stolen
 'The slightest doubt you have, you tell me.'

Thus, the evidences above show that SMs do not behave like prototypical definites, despite their necessarily definite shape. The main goal of this paper is to account for this paradox. In a nutshell, my proposal will be that SMs are weak definites, namely definite expressions that denote on a kind domain (cf. Carlson & Sussman 2005; Aguilar-Guevara & Zwarts 2010, 2013; Etxeberria 2010; Espinal & Cyrino 2012; a.o.). In order to get this meaning, I propose a semantics for SMs parallel to that of well-studied Q(uantity)-superlatives, but with the particularity that, in this case, the Q-adjective does not measure extensively, but intensively (cf. Bierwisch 1989; Wellwood 2014, 2019).

The remainder of the paper is organized as follows: Section 2 settles the ground by providing a state of the art of Q-superlatives and weak definites. Section 3 discusses how SMs fit into the class of Q-superlatives and reveals some properties of SMs regarding the noun and the adjective that will be key for my proposal. In Section 4 I propose a compositional analysis of SMs that accounts for their non-specific nature. Section 5 concludes.

2. Superlatives, quantity meaning and weak definites

2.1. Superlatives as indefinites and the absolute/comparative distinction

As we mentioned above, the literature has been aware that superlatives avoid the Definiteness Effect under certain conditions (cf. Fauconnier 1975, Rando & Napoli 1978, Hawkins 1978, Szabolcsi 1986, Lumsden 1988, Heim 1999, a.o.). Since Szabolcsi (1986), semanticists agree that superlatives may have two different meanings: the so-called **absolute** and **comparative** (or relative) readings—a distinction that goes back to Ross (1964). The latter is usually claimed to have an indefinite nature (cf. Szabolcsi 1986; Heim 1999; Farkas & Kiss 2000; Gutiérrez-Rexach 2006, 2010; a.o.). The ambiguity is shown in the next example from English:

(9) a. John climbed the highest mountain.b. 'John climbed a higher mountain than any other mountain.' (absolute)

⁽i) El menor error que {cometas/*cometes} nos puede llevar a la ruina. the least mistake that had.2SG/have.2SG us can.3SG take to the ruin 'The slightest mistake you make can lead us to ruin.'

La más mínima duda que {tengas/*tienes}, me la comentas.
 the more minimal doubt that had.2SG/have.2SG me LA comment.2SG
 'The slightest doubt you have, you tell me.'

c. 'John climbed a higher mountain than any other mountain climbed by a relevant set of mountain climbers.' (comparative)

Although there is no consensus on how to derive the comparative reading in superlatives, the authors tend to agree that the key is how we calculate the comparison class in each case. Thus, the comparative reading is claimed to be associated to focus in such a way that focus on *John* in (9a) facilitates that the comparison class of the superlative is calculated having into account the alternatives introduced by the focus operator (see Wilson 2021 for details and a comparison between the two major approaches, 'movement' vs. 'in situ' theories).

Superlatives under a comparative reading are claimed to be indefinites since they avoid the Definiteness Effect. In (10a), taken from Heim (1999: 15), the superlative DP is grammatical in the object position of existential *have*, contrary to regular definites (cf. (10b)):

(10) a. JOHN has the smartest sisterb. *John has the sister

In Spanish, the comparative reading is not so easily obtained in DPsuperlatives. However, it is more common in relative sentences that contain a superlative expression, which I will refer to as relative-superlatives (cf. Sáez 2016: 444):

(11) Es Juan el que mejor calificación obtuvo. is Juan the that better score got.3SG 'Juan was the one with the best score.'

As a proof for the comparative reading of the superlative in (11), Sáez realizes that a PP-restrictor is admissible, but the denotation of the PP must be a set that contains the focused individual (*Juan*) and not the element modified by the superlative adjective (*calificación*):

(12) Es JUAN el que mejor calificación obtuvo {de todos/ *de todas}. is Juan the that better score got.3SG of all-MASC of all-FEM 'Juan was the one with the best score {of all people/*of all scores}.'

Note that this test goes against Farkas & Kiss' (2000) observation that PPrestrictors are limited to the absolute reading (cf. (5)). Moreover, since the PPrestrictor denotes in (12) a set of people and not a set of scores, this suggests that PPrestrictors do not restrict de comparison class, as usually assumed. Presumably, in (12) we are comparing scores based on their quality, since the superlative adjective *mejor* modifies the noun *calificación*. Thus, I propose that PP-restrictors do not restrict the comparison class, but the domain of the definite determiner, otherwise restricted by a context set (cf. Westerståhl 1984; Gutiérrez-Rexach 2006, 2010). In the case of relative-superlatives, the definite determiner heads a relative pronoun whose antecedent is the focused noun *Juan*, so the restriction of the extensional domain must include the individual denoted by *Juan* and his alternatives (see Gutiérrez-Rexach 2006, 2010 for a proposal on how the relative reading is obtained by this mechanism, although he does not take into account PP-restrictors).

Regarding definiteness, it is not clear to what extent relative-superlatives are indefinite in Spanish. First, we note that definiteness is still syntactically required, since the relative sentence must be headed by a definite determiner:

*Es JUAN uno que mejor calificación obtuvo.
 is Juan some that better score got.3SG
 Intended: 'Juan was one with best score.'

Secondly, as regular definite DPs, relative-superlatives are ungrammatical in existential contexts in Spanish:

(14) *Hay en el salón el que mejor calificación obtuvo.
 there.is in the lounge the that better score got.3SG
 Intended: 'There is in the room the one with the best score.'

Thus, we cannot ensure that the comparative reading has a non-specific or even indefinite meaning in Spanish. However, the different location of the definite determiner in these superlatives, as well as the different possibilities of PP-restrictors, show that the so-called comparative reading is attested in relative-superlatives. Let us clarify that, as far as the comparative reading is concerned, I will not talk about definiteness in the superlative DP, but only about a particular way of restricting the extensional domain of the DP taking into account focus information.

2.2. Quantity superlatives

SMs are not the only superlatives that have quantity meaning. In fact, the literature on Q-superlatives has experienced a large increase in the last two decades (cf. Kayne 2007; Hackl 2009; Solt 2009, 2011; Szabolcsi 2012; Pancheva 2014; Wilson 2018, 2021; a.o.). In English, typical Q-superlatives are (*the*) *most N* and (*the*) *least N*, which denote sums of individuals:

(15) a. There were the most people at the party.

 $b. \rightarrow$ 'There were more people at the party than anywhere.'

- (16) a. John read the least books.
 - b. \rightarrow 'John read less books than any other person.'

The (b)-translations in the examples above show that Q-superlatives have a comparative reading, since the comparison classes contain sums of individuals (people and books, respectively) that we find in certain contexts delimited by the sentence. In fact, it has been observed that the absolute reading is not possible for Q-superlatives (cf. Hackl 2009 for a formal explanation). As an example, *the least books* in (16a) does not denote a smaller amount of books than any other amount of books (what we would expect in case this superlative had an absolute reading), but a smaller amount of read books than any other amount of books than any other amount of read books than any other amount of books read by certain people.

In Spanish we also find occurrences of Q-superlatives (cf. Sáez 1999, 2016):

- (17) a. Luis es el que más libros leyó.
 Luis is the that more books read.3SG
 'Luis read the most books.'
 - b. Léete los más libros posibles.read.2sG the more books possible'Read as many books as possible for you to read.'

However, the two Q-superlatives in (17) have a different structure. While (17a) is a case of relative-superlative, where the superlative quantifier modifies a plural noun instead of a gradable adjective, (17b) is a case of modal superlative (cf. Romero 2013, Loccioni 2019). Despite of the different syntax, both types of Q-superlatives have a comparative reading, as the English translations show. In this sense, (17a) admits the PP-restrictor that is associated with the comparative reading:

(18) Luis es el que más libros leyó {de todos nosotros/*de todos los libros}. Luis is the that more books read.3SG of all us of all the books 'Luis read the most books {among us/*of all books}.'

Adding a PP-restrictor is not possible in (17b) since in the case the comparison class is already restricted by the modal adjective *posibles*, what makes further domain restriction incompatible.

Regarding the Definiteness Effect, again Spanish does not completely match the English data. The relative-superlative in (17a) is not admitted in existential contexts, just as degree relative-superlatives (cf. (14)). However, modal Q-superlatives are acceptable in existential environments despite of their definite syntax:

(19) En la fiesta había los menos periodistas posibles. in the party there.were the less journalists possible 'There were the least journalists possible in the party.'

Thus, it seems that the modal nature of the comparison class in Q-superlatives might be relevant to weaken the referentiality of the DP and make it acceptable in existential contexts.

2.3. Weak definites

Before we turn back to the analysis of SMs, we will briefly analyze other cases of nonspecific definites. Of special interest for our purposes will be the previous study of socalled **weak definites** (cf. Carlson & Sussman 2005; Aguilar-Guevara & Zwarts 2010, 2013; Etxeberria 2010; Espinal & Cyrino 2012; Leonetti 2019; a.o.).

In uniqueness-based theories on definiteness, definite expressions are felicitous if there is a unique (or maximal) referent satisfying the descriptive content of the noun (cf. Russell 1905, Hawkins 1978).⁷ Thus, a definite DP as *the clock* refers to a unique

⁷ The main competitor of uniqueness-based theories is the familiarity-based theory (cf. Christophersen 1939, Kamp 1981, Heim 1982). Advocates of this theory claim that definite expressions denote known individuals (namely familiar in the discourse). Familiarity-based theories face many problems, although there has been a long-standing discussion about

individual such that this individual is a clock. However, definite DPs such as those in italics in the following examples are called 'weak definites' precisely because they seem not to refer to unique individuals:

(20) a. Laura cogió *el autobús* para ir a Cazorla. Laura took.3SG the bus for go to Cazorla 'Laura took the bus to go to Cazorla.'
b. Manu tuvo que ir *al médico*. Manu had.3SG that go to-the doctor 'Manu had to go to the doctor.'

Under the most common reading, the definite DPs *el autobús* and *el médico* have a generic-like reading which is number-neutral. In this sense, (20a) is compatible with a situation where Laura would have to take several buses to get to Cazorla. Likewise, (20b) describes a scenario compatible with Manu needing to see more than one doctor.

Furthermore, other properties of weak definites make them different from regular definite expressions. For example, it is known that weak definites have always narrow scope with respect to other quantifiers (cf. (21)), only accept kind modifiers (cf. (22))⁸ and do not introduce discourse referents (cf. (23)):

- (21) a. Todos los actores fueron al medico. all the actors went.3sG to-the doctor 'All the actors went to the doctor.'
 - b. \rightarrow #'There is an only doctor such that every actor went to see him/her.'
- (22) a. %Manu fue al hospital nuevo. Manu went.3SG to-the hospital new 'Manu went to the new hospital.'
 b. Manu fue al hospital geriátrico. Manu went.3SG to-the hospital geriatric
 - 'Manu went to the geriatric hospital.'
- (23) a. Manu fue al médicoi. #María loi vio. Manu went.3sG to-the doctor María LO saw.3sG 'Manu went to the doctor_i. María saw him_i.'

Many authors solve the puzzle of weak definites by proposing that these expressions denote kinds, what explains their generic and number-neutral meaning (cf. Aguilar-Guevara 2010, 2013; Etxeberria 2010). Thus, the definite DP *el autobús* in (20a) denotes the unique kind of buses:

(24) $\llbracket el \ autobús \rrbracket = \iota x_k. bus(x_k)$

⁸ I employ the symbol '%' to indicate that even if the sentence is interpretable, it has not the desired meaning, in this case, the weak-definite meaning.

which approach best explains definiteness. For our purposes here, familiarity is not an appropriate candidate, since superlatives have been always presented as a clear example of how uniqueness works in definiteness (cf. Hawkins 1978). Furthermore, the fact that SMs do not license anaphora, as discussed in Section 1 (cf. (4)), prevents us from using a familiarity-based approach for them.

This proposal accounts for the properties observed above. Weak definites do not introduce discourse referents and necessarily have narrow scope precisely because they are not referential insofar as they do not denote individuals, but intensional objects. Also, the kind meaning prevents us from modifying the noun with non-kind modifiers, while allowing modifiers that establish a sub-kind of the property.

Moreover, treating weak definites as kinds allows us to maintain the uniqueness theory, since in these DPs uniqueness is expressed over kinds, and not over individual tokens. In this sense, weak definites are genuinely definite, but non-specific as generic.

3. Semantic properties of SMs

3.1. SMs as Q-superlatives

Since the main purpose of this paper is to provide a compositional semantics that accounts for the non-specific nature of SMs, we will first analyze to what extent these expressions fit with our previous knowledge about superlatives.

In Section 1 we noted that SMs have a quantity meaning insofar as they denote a minimal amount that we can paraphrase with an NPI-*any*. This meaning prevents an absolute reading in SMs. We repeat here (2):

(2) a. No hubo el menor error.

not there was the least mistake

'There wasn't the slightest mistake.'

- b. \rightarrow 'There wasn't any mistake.'
- c. \rightarrow #'There wasn't the only mistake that is smaller than any other mistake.'

However, despite of their (existential) quantity meaning, SMs do not pattern with previously studied Q-superlatives. The first difference we must point out is that, although SMs do not have an absolute or referential reading, they do not have a comparative reading either, contrary to regular Q-superlatives:

- (25) a. Luis no ha tenido el más mínimo problema. Luis not have.3SG had the more minimal problem
 'Luis hasn't had the slightest problem.'
 - b. \rightarrow #'Luis hasn't had a smaller doubt than any other problem he had.'

The paraphrase in (25b) shows the meaning we would expect to obtain in case the SM had a comparative reading, assuming focus on *Luis*. However, this reading is not attested. Therefore, surprisingly, SMs do not seem to participate in the absolute/relative distinction.

Further evidence for this comes from the observation that SMs not only reject PP-restrictors associated with the absolute reading, as noticed in (5), but any type of PP-restrictor, regardless of whether it is related to the absolute or the comparative reading:

(26) *Diego no tiene la más mínima duda {de todos/ de todas}.
 Diego not have.3SG the more minimal doubt of all-MASC of all-FEM
 Intended: 'Diego doesn't have the slightest doubt {of all people/of all doubts}.'

Thus, on the one side, it seems clear that SMs have a quantity meaning, as the paraphrase with *any* shows, but, on the other side, the meaning of SMs does not fit with the well-known comparative reading of Q-superlatives.

Peter Hallman (p. c.) points out that SMs have a modal flavor. In some way, even if we cannot get a comparative reading, the meaning of an SM can be paraphrased with a modal superlative:

(27) a. No ha cometido el más mínimo error. not have.3sG committed the more minimal mistake 'She/he hasn't made the slightest mistake.'
b. → 'She/he hasn't made a mistake as small as possible.'

However, despite of this modal flavor, unlike modal superlatives, SMs do not allow modal restrictors either, so that a priori it does not seem desirable to derive their meaning by means of the same mechanism or by stipulating some kind of cover modal operator:

(28) ??No ha mostrado el más mínimo interés posible. not have.3SG showed the more minimal interest possible Intended: 'She/he didn't show the slightest mistake possible.'

Although some speakers do not directly judge (28) as ungrammatical, they do recognize that adding *posible* to the superlative gives rise to a redundant meaning, what suggests that the modal flavor of SMs may have a different source.

Another difference with Q-superlatives has to do with the demands that SMs impose on the noun. Although we will go into this in more detail in the next subsection, suffice it for now to point out that, unlike regular Q-superlatives, SMs reject plurals:

(29) *No había los más mínimos errores. not there.were the-PL more minimal-PL mistakes Intended: 'There weren't the slightest mistakes.'

This suggests that even if SMs have a quantity meaning, this quantity is not extensive, in the sense that we are not measuring number or any sizeable mereological structure.

Thus, although the quantity meaning of SMs seems clear, these expressions do not fit into the paradigm of Q-superlatives, so they represent an oddity that has so far gone unnoticed in the literature. In the next subsection we will discuss some properties of SMs that will shed light on this problem.

3.2. Gradability in SMs

We have seen above that SMs reject plurals. However, the restrictions on the kind of noun that SMs accept are broader. Thus, the following examples, which include both concrete singular count nouns and matter-referring mass nouns are rejected:

- (30) a. *No ha habido el más mínimo {petróleo/aceite/viento...} not have.3SG had the more minimal petroleum/oil/wind Intended: 'There wasn't the slightest {petroleum/oil/wind...}'
 - b. *No ha habido el más mínimo {coche/amigo/libro...} not have.3sG had the more minimal car/friend/book
 Intended: 'There wasn't the slightest {car/friend/book...}'

On the contrary, the nouns that appear most frequently in SMs are both simple eventuality nouns (*mistake* type)⁹ and quality-denoting mass nouns (*interest* type). The following lists, while not exhaustive, show some examples:

(31) Simple eventuality nouns in SMs

comment, concession, detail, doubt, mistake, error, gesture, hint, idea, incident, inconvenience, intention, irregularity, movement, opportunity, possibility, problem, noise, rumor, signal, slip, sound, suspicion, trace...

(32) Quality-denoting nouns in SMs

attention, boast, glance, glimpse, confidence, knowledge, importance, interest, patience, possibility, quantity, grudge, respect, risk, sense, fear...

Looking at the lists above, we might be tempted to think that the main characteristic required for nouns to appear in SMs is that they need to be abstract. However, other abstract nouns such as dimensional ones also turn out to be ungrammatical in SMs:

(33) *No hubo la más mínima {altura/velocidad/temperatura}.
 not there.was the more minimal height/speed/temperature
 Intended: 'There wasn't the slightest {height/speed/temperature}.'

In this paper, I will assume that the main property of the nouns that appear in SMs is that they must be gradable or intensively measurable. As far as quality-nouns (QNs henceforth) as those in (32) is concerned, Tovena claims that they are **intensive quantity nouns** in that they possess the "possibility of undergoing continuous increase or contraction without a corresponding extension in space or time" (2001: 570) (on QNs, see also Francez & Koontz-Garboden 2015, 2017; Cariani et al. 2019 and Zato

The main difference between *party*-like nouns and *mistake*-like nouns is that only the latter are gradable in a sense to be defined right below in the paper.

⁹ We take the label *simple eventuality nouns* after Grimshaw (1990), although the author uses this for nouns as *party* or *war*. However, these nouns are not admitted in SMs:

⁽i) *No hubo la más mínima {fiesta/guerra/tormenta}.
not there.was the more minimal party/war/storm
'There wasn't the slightest party/war/storm.'

2020a, b). Thus, QNs are equivalent to Moltmann's (2004, 2009) 'kinds of tropes' and Chierchia's (1984) 'entity correlates of properties'.

Following Wellwood (2014, 2019), I will assume that the distinction between extensive quantity (amount, number) and intensive quantity (intensity) is the type of object that we measure in each case. Extensive measurement occurs when we measure individuals or events, whereas intensive measurement is the operation that takes place when we measure states. Therefore, I will define QNs as scalar-ordered properties of states:

(34) $\llbracket QN \rrbracket = \lambda s: s \in \langle D_s, \leq \rangle. P(s)$

(not final)

This definition tentatively includes dimensional nouns as *altura* 'height' or *velocidad* 'speed', since these nouns are arguably gradable and denote sets of states. However, we could check out in (33) that this type of nouns is rejected in SMs. The difference between QNs in (32) and dimensional nouns is that only the former are evaluative in Bierwisch's (1989) sense, namely only QNs denote a positive extent on a scale delimited by a minimal threshold whose value depends on the context. On the contrary, dimensional nouns denote whole dimensions without further specification about evaluativity, and for them the minimum is the absolute zero, which does not delimitate any positive extent in the scale.

This distinction explains Fábregas' (2016) observation that not all deadjectival nominalizations (a subtype of gradable nouns) give rise to the same inferences: only QNs express that the subject possesses the positive property associated with the noun, while dimensional nouns do not:¹⁰

- (35) a. la altura de Afshin Esmaeil the height of Afshin Esmaeil
 'Afshin Esmaeil's height'
 b. → 'Afshin Esmaeil is tall'
- (36) a. la generosidad de Afshin Esmaeil the generosity of Afshin Esmaeil 'Afshin Esmaeil's generosity'
 b. → 'Afshin Esmaeil is generous'

Semantically, the difference between QNs and dimensional nouns can be expressed in the following terms, where stnd is a function that returns a standard on a scale:

(37) a.
$$[\![QN]\!] = \lambda s: s \in \langle D_s, \leq \rangle. P(s) > \operatorname{stnd}([\![P]\!]_c)$$
 (not final)
b. $[\![N_{dim}]\!] = \lambda s: s \in \langle D_s, \leq \rangle. P(s)$

¹⁰ Fábregas proposes that this distinction is syntactic: while dimensional nominalizations (*altura*-like) lexicalize a structure in which the nominalizer is merged directly above an AP (or above the root, as an anonymous reviewer suggests), in quality nominalizations (*generosidad*-like) the nominalizer is merged above a DegP. However, it is worth to mention that not all gradable nouns are nominalizations (e.g., *temperatura* 'temperature' denotes a dimension, while *respeto* 'respect' denotes a quality), what prevents us from extending this analysis to all nouns under discussion here.

As a final step in our brief analysis of QNs, we return our attention to the examples in (35) and (36) to point out that these nouns accept a PP that is interpreted as a notional subject possessing the gradable property, as *de Afshin Esmaeil* in the cited examples. Moltmann (2004, 2009) and Zato (2020b) agree that DPs like those in (35) and (36), with the PP modifier, denote concrete instantiations of state-kinds, i.e., the realization of a concrete state of GENEROSITY or HEIGHT.¹¹ In this sense, Zato points out that QNs denote in the domain of kinds, while the expression of the notional subject turns these kinds into tokens. To account for this distinction, I will assume, finally, that QNs do not denote properties of states, but rather properties of state-kinds:¹²

$$(38) \llbracket QN \rrbracket = \lambda s_k : s_k \in \langle D_{s_k}, \leq \rangle. P(s_k) > \operatorname{stnd}(\llbracket P \rrbracket_c)$$
(final)

Thus, my proposal is that SMs do not only require gradable nouns in the sense above explained (intensively measurable), but they presuppose that these nouns are evaluative in the sense of Bierwisch (1989). Specifically, this proposal treats the adjective in SMs as a **diminisher**, namely a degree modifier that selects for lower-closed scales, e.g., *slightly* in English (cf. Kennedy 2007, Bogal-Albritten 2012, Sassoon 2012, Solt 2012, Toledo & Sassoon 2012, Gumiel Molina et al. 2020). Precisely, we notice that besides *mínimo*, also adjectives such as *ligero* 'slight' or *leve* 'light', the adjectival counterparts of the diminishers *ligeramente* and *levemente*, respectively, are admissible in SMs:

(39) No hubo el más {ligero/leve} interés. not there.was the more slight/light interest 'There wasn't the slightest interest.'

Treating the adjective in SMs as a diminisher solves several problems. First, it explains why only gradable nouns with evaluative meaning are likely to appear in SMs. Secondly, its nature as a degree modifier explains why it appears in prenominal position in Spanish, reserved for non-specific modification:

(40) *No hubo el interés más {mínimo/ligero/leve}.
 not there.was the interest more minimal/slight/light
 Intended: 'There wasn't the interest that was slightest.'

Regarding simple eventuality nouns as those in (31), I will claim that they are gradable insofar as their meaning is defined from a gradable essential property, that can be understood as the degree of intensity or N-ness. As an example, what a doubt is depends on the degree of DOUBTNESS an individual has. That this is an essential property means that the existence of entities in the extensional domain (in this case, concrete realizations of doubts) depends on this property (cf. Gutiérrez-Rexach 2014):

¹¹ I use small caps to express kind meaning.

¹² The relationship between gradability and state-kinds has been studied in Anderson & Morzycki (2015). While these authors replace degree variables used in degree semantics by state-kinds, I assume here Zato's (2020b) proposal, who treats gradable properties directly as properties of state-kinds in a scalar-ordered domain.

(41) **Essential property** (Gutiérrez-Rexach 2014: 95)

Let PROP(N) be the set of defining properties of N and E the property of existence, for any $P \in PROP(N)$, we say that P is an essential property of N (i.e., $P \in ES(N)$) iff $P \in PROP(N) \leftrightarrow E \in PROP(N)$.

Thus, note that the smaller a doubt is (i.e., the less degree of DOUBTNESS it has), the less of a doubt it is. On the contrary, however small a friend might be, it will never be less of a friend. This reveals that FRIENDNESS (namely, what counts as a prototypical friend) is not an essential property of *friend*.

Importantly, only gradable simple eventuality nouns accept modification by diminishers:

(42) a. un ligero error a slight mistake 'A slight mistake'
b. una mínima duda a minimal doubt 'A minimal doubt'
c. *un ligero amigo a slight friend Intended: 'a slight friend'
d. *un mínimo entusiasta a minimal enthusiast Intended: 'a minimal enthusiast'

Thus, I propose that when it comes to simple eventuality nouns, the degree modifier (in the case of SMs, a diminisher) does not directly modify the extension of the noun, but its intensity at a kind level, where the modifier accesses the gradable property that defines the noun (DOUBTNESS for *doubt*, MISTAKENNESS for *mistake*, etc.).

In summary, my proposal parts from the assumption that only gradable nouns are acceptable in SMs. Nouns are gradable insofar as they denote scales (*interest* type) or are defined from a gradable essential property (*mistake* type). This explains the data in (30). Furthermore, the dimisher nature of the adjective in SMs require that the nounrelated scale cannot be dimensional, but evaluative in Bierwisch's (1989) sense, so SMs denote on a positive scalar extent. This explains (33) and predicts that dimensional nouns will be acceptable in an SM as long as they are interpreted evaluative. The prediction is borne out in the following example:

(43) Ese coche no tenía la más mínima velocidad. that car not had.3sG the more minimal speed 'That car didn't have the slightest speed.'

In Spanish, (43) is only interpretable in case the noun *velocidad* means 'fastness'. So, (43) cannot refer to a situation where a car is parked (zero speed), but only to a situation where the car was slow, so (43) means 'That car wasn't fast at all'. This fits with our assumption that the adjective in SMs is a diminisher.

4. The proposal: SMs as weak definites

My proposal for SMs is that they are a special type of Q-superlatives. The difference with other Q-adjectives as English the most and the least or Spanish relativesuperlatives is that in the case of SMs this quantity is intensive. This means that the measured domain, unlike that of non-gradable nouns, does not consist of individuals, but of state-kinds. Otherwise, the composition of an SM is parallel to that of Qsuperlatives: while in the latter the superlative quantifies over a Q-adjective (e.g., much), in SMs it quantifies over an I(ntensity)-modifier, as mínimo in Spanish SMs. Furthermore, Q-adjectives select for a structured domain, which is provided either by the plural or by a mass denotation. I-modifiers also select a structured domain, but in this case not mereologically structured, but scalar-ordered.

Since we must allow *mínimo* to be quantified by the superlative, I give it an adjectival semantics. Formally, I define the I-modifier mínimo as a scalar-ordered set of state-kinds that takes a QN and returns a low extent in the scale, namely an extent that slightly exceeds the minimum. Thus, mínimo works as a diminisher:

(44)
$$\llbracket m(nimo) \rrbracket = \lambda S_{\langle S_k, t \rangle} : S_{\perp} . \text{low}(S)$$

Where S_{\perp} is an evaluative scale of state-kinds

I further assume a semantics for superlatives where the definite determiner functions as an iota operator and contributes uniqueness, so its semantics is not subsumed to the definition of the superlative quantifier (contra Heim 1999). Regarding the latter, I assume that it universally quantifies over the elements in the comparison class and states that a set of elements are bigger than the rest:

 $\llbracket m \acute{a}s \rrbracket = \lambda S_{\langle s_k, t \rangle} \lambda s_k. \forall s_k' \in S[s'_k \neq s_k \rightarrow S(s_k) > S(s_k')]$ $\llbracket el \rrbracket = \lambda S_{\langle s_k, t \rangle}. \iota s_k[S(s_k)]$ (45)

-

(46)
$$\llbracket el \rrbracket = \lambda S_{\langle s_k, t \rangle}$$
. $\iota s_k [S(s_k)]$

The complete compositional semantics of an SM as el más mínimo interés 'the slightest interest' would be as follows:

$$(47) a. \llbracketmás \rrbracket (\llbracketmínimo \rrbracket) = \lambda S_{\langle s_k,t \rangle} \lambda s_k. \forall s_k' \in S[s'_k \neq s_k \rightarrow S(s_k) > S(s_k')] (\lambda S_{\langle s_k,t \rangle}: S_{\perp}. low(S)) = \lambda s_k. \forall s_k' \in low [s'_k \neq s_k \rightarrow low(s_k) > low(s_k')] b. \llbracketmás mínimo \rrbracket (\llbracketinterés \rrbracket) = \lambda s_k. \forall s_k' \in low [s'_k \neq s_k \rightarrow low(s_k) > low(s'_k)] (\lambda s_k. interest(s_k) > stnd(\llbracketinterés \rrbracket_c)) = \lambda s_k. interest(s_k) > stnd(\llbracketinterés \rrbracket_c) \land \forall s'_k \neq s_k \rightarrow low(s_k) > low(s'_k) c. \llbracketel \rrbracket (\llbracketmás mínimo interés \rrbracket) = \lambda S_{\langle s_k,t \rangle}. is[S(s)](s_k. interest(s_k) > stnd(\llbracketinterés \rrbracket_c) \land \forall s'_k \neq s_k \rightarrow low(s_k) > low(s'_k)) = is_k [interest(s_k) > stnd(\llbracketinterés \rrbracket_c) \land \forall s_k' \neq s_k \rightarrow low(s_k) > low(s'_k)]$$

In prose, what this SM means is 'the lowest state-kind in the INTEREST domain'. It is important to point out that this entity is not a state-token, but a state-kind, which is an intensional object. Thus, when we deny that someone has the slightest interest, we are not simply stating that this person has no state of interest, but that he has no interest in every possible world, given that kinds represent all possibilities of instantiation of an entity. This explains the modal flavor of SMs (see Section 3.1), but without treating them as modal superlatives.

As the reader may have noticed, the analysis proposed for SMs makes them a type of weak definites, since they impose uniqueness over kinds, instead of tokens. Treating SMs as weak definites explains the restrictions and observations previously seen. First, since kinds are intensional objects, they are non-specific insofar they do not denote individual tokens. In this sense, *el más mínimo error* 'the slightest mistake' does not refer to a particular instantiation of mistake which happens to be very small, but the lowest degree of MISTAKENNESS, which, in the proposal amounts to the lowest state-kind in that domain. This equates the non-specific meaning with the quantity meaning, since state-kinds are not only treated as intensional objects, but as scale-ordered elements. Thus, selecting the smallest state-kind of MISTAKENNESS amounts to select for the lowest value in the scale.

Another prediction of the proposal is that SMs will reject any type of structure that renders them token. Precisely, Borik & Espinal (2015) have proposed that this is the function of a NumP in the functional structure of the noun. In short, they argue that this functional layer introduces Carlson's (1977) Realization Operator, that turns properties of kinds into properties of tokens. According to the authors, this is the reason why kind DPs in Spanish cannot be pluralized. Precisely, SMs cannot be pluralized either, as mentioned before. We repeat here (29):

(29) *No había los más mínimos errores. not there.were the-PL more minimal-PL mistakes Intended: 'There weren't the slightest mistakes.'

Moreover, treating SMs as weak definites predicts also that modifiers will not be allowed in these expressions unless they are kind-modifiers, namely modifiers that define a sub-kind. Effectively, this prediction is borne out:

- (48) a. No ha tenido la más mínima duda razonable. not have.3SG had the more minimial doubt reasonable 'She/he hasn't had the slightest reasonable doubt.'
 - b. *No ha tenido la más mínima duda sorprendente. not have.3SG had the more minimial doubt surprising Intended: 'She/he hasn't had the slightest surprising doubt.'
- (49) a. No ha mostrado el más mínimo interés empresarial. not have.3SG shown the more minimal interest corporate 'She/he hasn't shown the slightest business interest.'
 - b. *No ha mostrado el más mínimo interés desmedido. not have.3SG shown the more minimal interest excessive Intended: 'She/he hasn't shown the slightest excessive interest.'

Finally, our proposal also predicts that, as weak definites, SMs do not admit PP-restrictors, as noted in (5):

(5)	a. No hay	el más	mínimo interés (*d	e todos).
	not there.i	s the mor	e minimal interest o	f all
	'There isn't the slightest interest (*of all).'			
	b. No tiene	el m	ás mínimo problem	a (*de todos).
	. 1	1		C 11

not have.3SG the more minimal problem of all 'She/he hasn't the slightest problem (*of all).'

In Section 2.1 we pointed out that these modifiers depend on the definite determiner and restrict the domain of the DP, not that of the superlative quantifier. Gutiérrez-Rexach (2010) argues that these PPs denote sets of individuals. I further add that they denote sets of individual-tokens, given their restrictive nature. Since the definite determiner imposes uniqueness on kinds in SMs (a unique state in every possible world), it is impossible to restrict the domain of the DP through these PP-restrictors.

In sum, my proposal is that SMs are definite expressions, as are all superlatives. This means that the superlative DP states uniqueness. The particularity of SMs is that in these cases uniqueness is not applied on tokens, but on kinds, giving the superlative a generic and non-specific reading.

5. Conclusions

In this paper we have studied a type of superlative that had so far gone unnoticed in the literature, called here 'superlative minimizers', which take the form *el más mínimo* N in Spanish. We have been able to verify that these expressions, despite being necessarily definite, do not behave like regular definite expressions. In particular, SMs have a non-specific or non-referential meaning, as shown by the fact that they are TPN or that they can appear in existential contexts, among other properties discussed at length in the paper.

From certain observations on the type of nouns that these superlatives admit, we have shown that the non-specificity of SMs can be analyzed as the result of state uniqueness over kinds. In this sense, SMs fall into the well-known group of weak definites, together with other expressions such as *the doctor* in *I went to the doctor*, where the definite DP fails to refer to a particular individual. Assuming a semantics of gradable predicates as sets of scalar-ordered state-kinds, my proposal derives the non-specificity of SMs, giving rise to a meaning in which the superlative denotes the lowest value in a scale of state-kinds. In this sense, two different theories are reconciled: on the one hand, the theory of weak definites, and, on the other hand, the theory of Q-superlatives.

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