# Are nouns gradable? Evidence from adjectives of completion<sup>1</sup>

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### 1. Introduction

Gradability is usually considered a property exclusive of adjectives (but see Sapir, 1944; Bolinger, 1972; Doetjes, 1997; Sassoon, 2007, a.o.), which is manifested in the possibility of being modified by degree modifiers such as *muy* 'very' in Spanish (1) and their occurrence in degree constructions, such as comparatives (2). As opposed to (gradable) adjectives, nouns do not show these properties, as the second part of the examples (1) and (2) illustrate.

- (1) Un chica muy alta. / \*Un muy pájaro.'A very tall girl.' / 'A very bird.'
- (2) Lucía es más alta que mi hermana. / \*Mi mascota es más pájaro que la tuya. 'Lucía is taller than my sister.' / 'My pet is more bird than yours.'

Among degree modifiers, adverbs of completion such as *completamente* 'completely', *totalmente* 'totally', and *absolutamente* 'absolutely' belong to the class of maximality modifiers. In particular, they increase the degree of the property denoted by the adjective to its maximum value (Kennedy & McNally, 2005) (3)-(4).

- (3) La habitación estaba completamente oscura. 'The room was completely dark.'
- (4) El vaso estaba totalmente lleno. 'The glass was totally full.'

Adjectival correlates of these adverbs (*completo* 'complete', *total* 'total', *absoluto* 'absolute') modify nouns. In postnominal position in Spanish, these adjectives have a purely literal use meaning 'having every necessary part or element' (5). In prenominal position, this sense can be found with group nouns (6). However, in some cases, the adjective seems to replicate the type of modification adverbs of completion perform on the adjective, i.e., a maximal degree reading (7)-(9).

- (5) Ya está disponible el programa completo del congreso.'The complete programme for the workshop is already available.'
- (6) El museo cuenta con una completa colección de obras de Picasso.
   'The museum includes a complete collection of Picasso's works.'
- (7) La habitación estaba en completa oscuridad. 'The room was in complete darkness.'
- (8) El trabajo es un elemento clave para una completa integración en la sociedad. 'Work is a key element for a complete integration into society.'

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(9) Este tío es un completo idiota. 'This guy is a complete idiot.'

This paper focuses on whether the examples in (7), (8) and (9) may be instances of degree modification in the nominal domain. Based on the semantic and syntactic properties of modification by adverbs and adjectives of completion in Spanish, I will argue for two different scales associated with nouns. First, there is a grammatical scale which nominalizations inherit from their source adjectives or VPs. Second, there is a prototypicality scale associated with nouns that can also be targeted by adjectives of completion.

The structure of the paper is as follows. In the next section, I will present the properties of adverbs of completion when modifying adjectives and VPs. In section 3 I analyze the properties of nouns and their interaction with adjectives of completion. In particular, sections 3.1 and 3.2 are devoted to deadjectival and deverbal nominalizations respectively. In section 3.3 I turn to evaluative nouns and provide evidence that they cannot be considered gradable in the same sense as the ones in the previous sections. Section 4 concludes and raises some further issues.

# 2. Degrees and scales

Gradable adjectives have received different analyses. I will assume here that the semantic ontology includes the type 'degree' (d) and that gradable adjectives map their arguments onto these abstract representations of measurement (Bartsch & Vennemann, 1973; Cresswell, 1976; von Stechow, 1984; Kennedy, 1999, a.o.; see Kamp, 1975; Klein, 1980; van Rooij, 2008, a.o. for an alternative approach). A set of degrees totally ordered with respect to some dimension such as height or cost constitutes a scale. In other words, for a predicate to be gradable it must be associated with a scale.

Adjectival scales have three parameters: a set of degrees (measurement values), a dimension indicating the type of measurement, and an ordering relation (Kennedy & McNally, 2005). Some degree modifiers are only compatible with a particular kind of scale structure. In the next section, a scale typology will be presented, along with the properties of maximality modifiers. Section 2.2 shows how these ideas can be extended to the verbal domain.

# 2.1. Adjectival domain

Gradable adjectives can be classified according to the structure of scale associated with them (Kennedy & McNally, 2005). In particular, the ordered set of degrees can have maximal and/or minimal values or none of them. Scales are *closed* if they have one or both endpoints, and *open* if they do not have any endpoint at all. This results in the following typology:

a)	(Totally) open scale	00	(tall-short, deep-shallow)
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- c) Upper closed scale o———• (*pure-impure, safe-dangerous*)
- d) (Totally) closed scale •———• (visible-invisible, full-empty)

The structure of the scale associated with an adjective is linguistically significant for the occurrence of degree modifiers and the determination of the standard of comparison (see Kennedy & McNally, 2005; Rotstein & Winter, 2004). Specifically, some degree modifiers

only combine with open or closed scale adjectives. In this paper, we will focus on the distribution of a particular type of maximality modifiers: adverbs of completion.

### 2.1.1. Maximality modifiers

Adverbs of completion (*completamente* 'completely', *absolutamente* 'absolutely', *totalmente* 'totally') are maximality modifiers. This kind of degree modifiers raise the degree of the denoted property to its maximum value and thus they only combine with gradable adjectives having an endpoint, i.e., adjectives associated with a (partially or totally) closed scale (*absolute adjectives*, in Rotstein & Winter's (2004) terms) (10)-(13).

(10)	Mi hermana es completamente ??alta / ??baja. 'My sister is completely ??tall / ??short.'	[Open scale]
(11)	Este cantante es totalmente ??famoso / desconocido. 'This singer is totally ??famous / unknown.'	[Lower closed scale]
(12)	Esta agua es 100\% pura / ??impura. 'This water is 100\% pure / ??impure.'	[Upper closed scale]
(13)	Las estrellas eran absolutamente visibles / invisibles. 'The stars were absolutely visible / invisible.'	[Totally closed scale]

Besides their sensitivity to scale structure, maximality modifiers display the following properties regarding entailments and their relations with other modifiers: They entail that the end of the scale has been reached (Kennedy & McNally, 2005). The example in (14) thus shows a contradiction, as *completamente* sets the degree of purity of the water in 100% and therefore the water could not be purer. The same applies to the comparative in (15).

- (14) Esta agua es completamente pura, #pero podría serlo más. 'This water is completely pure, but it could be more pure.'
- (15) La tramoya es completamente invisible, #pero van a instalar una más invisible.
   'The stage machinery is completely invisible, but a more invisible one will be installed.'

Adverbs of completion belong to the group of proportional modifiers, which target closed scales (Kennedy & McNally, 2005). Therefore, other members of this category such as *medio* 'half' or *prácticamente* 'mostly' are expected to show the same distribution as *completamente*. This is borne out, as shown in (16) and (17).

(16)	??Tu hermana es medio alta / baja.	
	'Your sister is half tall / short. '	

(17) La puerta está medio cerrada / abierta. [Closed scale] 'The door is half closed / open.'

The denotation of *completamente* A is very similar to that of a total adjective, in the sense that it is an interval that can be reduced to a point (see Rotstein & Winter, 2004 for a complete characterization of total/partial adjectives). This is manifested in its acceptability with *casi* 'almost' and its infelicity with other modifiers such as *ligeramente* 'slightly' (18).

(18) El cantante era casi/??ligeramente completamente desconocido. 'The singer was almost/slightly completely unknown.'

With these properties in mind, in next section we will see how gradability is expressed in the verbal domain and which are the properties of maximality modifiers in that realm.

### 2.2. Verbal domain

In the verbal domain, aspectual composition has been analyzed in terms of scalar structure (Hay, Kennedy, & Levin, 1999; Caudal & Nicolas, 2005; Piñón, 2005; Kennedy & Levin, 2008, a.o.). Specifically, the behavior of verbs of variable telicity, such as incremental theme verbs (*eat, destroy*), degree achievements (*cool, widen*), and directed motion verbs (*ascend*, *descend*), has been argued to stem from a function that measures the degree to which an object changes relative to some scalar dimension over the course of an event (see Kennedy & Levin, 2008; Kennedy, 2012).

Vendler (1957) distinguishes telic predicates like *write a novel* from atelic predicates like *walk* on the basis of whether they entail of an event that a "set terminal point" has been reached. The usual test for telicity is shown in (19)-(21): *for*-adverbials occur with atelic predicates (21) but not with telic ones (19)-(20). The terminal point in telic events can be correlated with endpoints in a scale and, thus, non-atomic<sup>2</sup> telic predicates (having an endpoint) (19) and atelic events (without an endpoint) (21) can be associated with closed and open scales respectively.

(19)	Los obreros construyeron la casa en/??durante 10 días. 'The workers built the house in/??for 10 days.'	[non-atomic telic, ●——●]
(20)	Paloma llegó en/??durante 10 segundos. 'Paloma arrived in/??for 10 seconds.'	[atomic telic, ●]
(21)	Paloma paseó ??en/durante 10 minutos. 'Paloma walked ??in/for 10 minutes.'	[atelic, ●——○]

Maximality modifiers only combine with non-atomic telic events (*accomplishments* in Vendler's (1967) terms) (22), as the ungrammaticality of (23) and (24) shows.

- (22) Los obreros construyeron completamente la casa. 'The workers completely built the house.'
- (23) ??Paloma llegó completamente. 'Paloma completely arrived.'
- (24) \*Paloma paseó completamente. 'Paloma completely walked.'

The properties of adverbs of completion when modifying a VP pattern with those of *completamente* + adjective. In this case, modification by *completamente* also entails that the event has come to its endpoint (25)-(26).

- (25) La mancha desapareció completamente, #pero podría haber desaparecido más. 'The stain disappeared completely, but it could have disappeared more.'
- (26) Las bombas destruyeron completamente la ciudad, #pero quedaron edificios en pie. 'The bombs completely destroyed the city, but some buildings didn't collapse.'

Proportional modifiers such as *medio* 'half', *parcialmente* 'partly' display the same distribution (27)-(28); and the modified VP has total semantics (see (18)), as combination with *casi*, but not *ligeramente* shows (29).

(27) La mancha desapareció parcialmente. 'The stain partly disappeared.'

<sup>&</sup>lt;sup>2</sup> Atomic telic events (*kill*) are based on a one step change-of-state, whereas non-atomic telic events (*read a novel*) denote a complex change-of-state, with intermediary degrees (Dowty, 1979, see also Caudal & Nicolas, 2005).

- (28) Las bombas destruyeron media ciudad. 'The bombs half destroyed the city.'
- (29) La mancha desapareció casi/\*ligeramente completamente. 'The stain disappeared almost/slightly completely.'

# **3.** Modification by adjectives of completion

Once the basic features of adverbs of completion have been settled, we now turn to adjectives of completion (*completo*, *absoluto*, *total*). In this section, the properties of these adjectives when modifying nouns are compared to those of adverbs of completion, showing that, with some particular nouns (deadjectival and deverbal nominalizations), adjectives of completion also seem to be sensitive to scale structure. We will take this as evidence for the presence of a scale associated with the lexical entry of the noun and inherited from the source of the nominalization. On the other hand, in their interaction with evaluative nouns, adjective of completion display different properties. By comparing these uses with other related modifiers, I will propose that, in this case, adjective of completion target a prototypicality scale.

### 3.1. Deadjectival nominalizations

Adjectives of completion do not combine with any adjectival nominalization. As can be observed in (30) and (31), these modifiers are restricted to nouns derived from closed scale adjectives. (30) shows that nouns derived from adjectives associated with a scale without an endpoint (e.g. *altura* 'tallness' < *alto* 'tall') do not occur with adjectives of completion, while nouns whose base adjective is associated with a closed scale (e.g. *visibilidad* 'visibility' < *visible* 'visible') do combine with *completo* (31).

- (30) ??completa altura 'complete tallness'; ??total profundidad 'total depth'; ??absoluta fama 'absolute fame'; ??completa impureza 'complete impurity'
- (31) total visibilidad 'total visibility'; absoluta seguridad 'absolute security'; completa soledad 'complete loneliness'; total aridez 'total arity'

More evidence for the hypothesis that deadjectival nominalizations inherit the degree structure from their base adjectives, and therefore are gradable, comes from the fact that modification by adjectives of completion display the same properties as modification by their correlate adverbs in terms of their entailments and their relation to other degree modifiers (see section 2.1.1). As for their entailments, the modified noun also entails that the end of the scale has been reached. The continuations in (32) and (33) then show a contradiction (cf. (14)-(15)).

- (32) La habitación estaba en completa oscuridad #pero todavía podría estarlo más 'The room was in complete darkness, but it could be darker.'
- (33) La total aridez caracteriza estos terrenos #pero podrían ser más áridos.
   'Total aridity is what characterizes these lands, but they could be more arid.'

Other proportional modifiers, such as *semi* 'semi' (34) or *parcial* 'partial' (35) can be found (cf. (16)-(17)). The behavior of *casi* 'almost' is equivalent as well (36) (cf. (18)).

- (34) Sus ojos brillaban en la semioscuridad de la habitación. 'Her eyes were shining in the semi-darkness of the room.'
- (35) Pudimos comprobar la parcial aridez del terreno.'We confirmed the land's partial aridity.'

(36) La habitación estaba en casi completa oscuridad. 'The room was almost in complete darkness.'

In addition to this, in the nominal domain, adjectives of completion can be used predicatively with a similar interpretation (37), which will become relevant in section 3.3:

(37) La oscuridad era completa. / La aridez es total. 'The darkness was complete.' / 'The aridity is total.'

### 3.2. Deverbal nominalizations

Turning now to deverbal nominalizations, it can be observed that adjectives of completion only combine with event nominals denoting accomplishments (i.e. non-atomic telic events) (38)-(39), while they are ungrammatical with achievements (atomic telic events)<sup>3</sup> (40)-(41) and activities (atelic events) (42)-(43).

- (38) La completa construcción de la casa. cf. (19), (22) 'The complete construction of the house.'
- (39) Chile terminó de independizarse en 1823. La completa independencia de Chile.
   'Chile finished its independence process in 1823 Chile's complete independence.'
- (40) ??La completa llegada de Paloma. cf. (20), (23) 'Paloma's complete arrival.'
- (41) \*Las imágenes terminaron de aparecer en el periódico. \*La completa aparición de las imágenes. 'The pictures finished appearing in the newspaper. — The pictures' complete appearance.'
- (42) \*El completo paseo de Paloma. cf. (21), (24) 'Paloma's complete walk.'
- (43) Paloma esperó ??en/durante 10 minutos. ??La completa espera de Paloma.
   'Paloma waited in/for 10 minuts. Paloma's complete wait.'

In the case of deverbal nominalizations, the degree structure from the source verb seems to be inherited as well. The properties of adverbs of completion displayed in modifying VPs can be found in the modification of deverbal nouns by adjectives of completion. For instance, the entailment that the end of the event has been reached remains. For this reason, the continuations in (44) and (45) are contradictory (cf. (25)-(26)).

- (44) Se realizó una completa transformación de la empresa, #pero se podría haber transformado más. 'A complete transformation of the company was carried out, but it could have been transformed more.'
- (45) Su total recuperación fue un milagro, #pero podría haberse recuperado más. 'Her total recovery was a miracle, but she could have recovered more.'

Other proportional modifiers such as *parcial* 'partial', and *medio* 'half' occur in the same contexts (46)-(47) (cf. (27)-(28)) Moreover, the modified NP has the semantics of a total construct, as combination with *casi*, but not *ligeramente* shows (48) (cf. (29)).

- (46) El alcalde ha prometido una parcial transformación del extrarradio. 'The mayor has promised a partial transformation of the suburbs.'
- (47) La torre estaba a media construcción cuando pararon las obras. 'The tower was half built when the works stopped.'

<sup>&</sup>lt;sup>3</sup> The test for telling apart accomplishments (non-atomic) from achievements (atomic telic) used here is the *finish* test (Vendler, 1957). Non-atomic events combine with *finish* whereas atomic events reject this predicate.

(48) Se llevó a cabo una casi completa transformación de la empresa.'An almost complete transformation of the company was carried out.'

As with deadjectival nominalizations, the modified nominalization can be paraphrased with a copular sentence (49)-(50) (cf. (37)).

- (49) La transformación fue completa. 'The transformation was complete.'
- (50) La recuperación fue total. 'The recovery was total.'

### 3.2.1. Interim conclusions

As shown in the previous sections, nouns derived from adjectives and verbs display the same restrictions and properties in their combination with maximality modifiers. In this sense, they seem to inherit a scale structure from their base elements. There are thus significant parallels in the structures associated with APs, VPs and NPs that constitute evidence for an analysis in terms of degrees of, at least, nouns derived from gradable adjectives and non-atomic event predicates.

### 3.3. Non-derived nouns

Adjectives of completion in prenominal position in Spanish occur also with non-derived nouns.<sup>4</sup> *Completo* receives a universal reading when these nouns are group nouns: In (6), repeated here as (51), the contribution of the adjective is to mark that the collection has all the elements it must have. The same applies when the parts are not strictly physical (52).

- (51) El museo cuenta con una completa colección de obras de Picasso. 'The museum includes a complete collection of Picasso's works.'
- (52) Se presentó un completo programa político para la próxima legislatura. 'A complete polítical agenda for the next term was presented.'

This use may receive a quantificational treatment (see e.g. Moltmann, 1997, §6.5 for adverbs of completion), but its characterization goes beyond the aim of this paper. In this section I will focus instead on nouns that are neither derived nor group nouns. Adjectives of completion combine with nouns that have an evaluative flavor such as *idiota* 'idiot' (53), *tragedia* 'tragedy', or *desorden* 'mess' (54), with a maximal or at least high degree interpretation.

- (53) Este tío es un completo idiota. 'This guy is a complete idiot.'
- (54) Su vida es una completa tragedia / un absoluto desastre. 'Her life is a complete tragedy / an absolute mess.'

<sup>&</sup>lt;sup>4</sup> In a small corpus-based search from the *Corpus del español* (Davies, 2002) with 134 examples of the form *completo N*, we found that 86 (64.2%) of them were deadjectival and deverbal nominalizations (*libertad* 'freedom', *evacuación* 'evacuation'), 30 (22.4%) were group nouns such as *colección* 'collection'. The rest (18, 13.4%) were classified as 'other'. The latter will constitute the focus of this section.

In this use, however, modification by *completo* does not display the properties it showed with derived nouns. Firstly, the entailment that the maximal degree has been reached does not hold, so the follow-ups in (55) and (56) do not express any contradiction (cf. (32)-(33)).

- (55) Este tío es un completo idiota, pero todavía podría serlo más. 'This guy is a complete idiot, but he could be more idiotic.'
- (56) Su vida era una total pesadilla, pero siempre podía ir a peor. 'Her life was a total nightmare, but it could be worse.'

Secondly, proportional modifiers such as *medio* 'half' and *parcial* 'partial' do not appear in these contexts (57)-(58) (cf. (34)(35)). Neither does *casi* (59) (cf. (36)).

- (57) \*Este tío es un parcial idiota. 'This guy is a partial idiot.'
- (58) ??Su vida era una media tragedia. 'Her life was half a tragedy.'
- (59) \*Este tío es un casi completo idiota.'This guy is an almost complete idiot.'

Thirdly, with evaluative nouns, the copular paraphrase is not possible (60)-(61) (cf. (37)).

- (60) \*Este idiota es completo. 'This idiot is complete.'
- (61) \*La pesadilla era total. 'The nightmare was total.'

This use of adjectives of completion patterns with other intensive uses of proportional modifiers outside the nominal domain such as the English VP-modifier *half* (Bochnak, 2013) (62) or the Québécois adjectival modifier tUt 'all' (Burnett, 2013) (63).

(62) The girls half washed the dishes. [They didn't do it in a proper way] (Bochnak, 2013, ex. 3)
(63) Jean est tUt content. 'Jean is really happy.' (Burnett, 2013, ex. 20a)

In these cases, what seems to be measured is the similarity of the referent of the expression (a noun in (53), a VP in (62), an adjective in (63)) with a prototypical or stereotypical instance of it. For example, in (53), the guy is said to have every quality the speaker or the context commonly associates with an idiot; in (62), what the girls did can be named, to some extent, as 'washing the dishes', but it is far from the proper or stereotypical way of washing up.

Resemblance of the referent with the prototype of the category denoted by the expression can be formalized as degrees in a scale of similarity. A piece of evidence for this analysis comes from the fact that these modifiers can target different 'degrees' of similarity, not just the maximal one (*a total idiot, half washed the dishes, sorta washed the dishes*). However, in this case, the prototypicality scale seems to be associated with the nouns itself rather than being inherited from a gradable source. Further research should deal with whether degree arguments need to be postulated for expressions associated with this scale or should receive another kind of analysis (see e.g. Anderson 2013 and Burnett 2013 for a slack regulation analysis of *sorta* and *tUt* respectively).

### 4. Conclusions and further issues

As has been presented in section 3, the type of modification adjectives of completion perform on the nouns depends on the noun itself: nominalizations from gradable adjectives and nonatomic telic event predicates receive a maximal degree (completive) interpretation; group nouns have a completive 'with all the required parts' reading; and evaluative nouns obtain an intensive reading. The fact that these interpretations are in complementary distribution would go against a homophony analysis of adjectives of completion whereby *completo*<sub>1</sub> could be treated as a degree modifier, *completo*<sub>2</sub> would be a regular qualifying adjective, and *completo*<sub>3</sub> would be analyzed as an intensifier. If this were the case, we would expect NPs with any type of noun to be ambiguous between the three interpretations. For this reason, I believe that a unified analysis of these three interpretations would be in the good track.

In this paper, I have addressed the question of gradability in the nominal domain by analyzing modification by adjectives of completion in Spanish (*completo*, *total*, *absoluto*) in the NP. Based on their distribution and the properties they share with their correlate adverbs (*completamente*, *totalmente*, *absolutamente*), I have argued that nominalizations do inherit a degree argument if the base element (an adjective or a verb) is gradable itself. Other nouns occurring with adjectives of completion, such as evaluative nouns, have been shown not to be gradable, at least in the same sense. Rather, they seem to be associated with a prototypicality scale which measures the closeness of the referent with the prototype of the category denoted by the noun.

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