ASPECTUAL COMPOSITION IN <SER/ESTAR + ADJECTIVE> STRUCTURES: ADJECTIVAL SCALARITY AND VERBAL ASPECT IN COPULAR CONSTRUCTIONS*

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ABSTRACT: The distribution of adjectives with the Spanish copulas ser and estar (‘be’) has been generally accounted for in the literature in aspectual terms, more specifically, in terms of the distinction between individual-level and stage-level predicates. Our claim is that the distributional properties of adjectives in the <ser/estar + A> structure can be better described if the scalar properties of the adjectives (in the sense of Kennedy & McNally 2005) are taken into account: open-scale/relative adjectives combine with ser, closed-scale/absolute adjectives combine with estar. From this hypothesis, a better theory arises about aspectual composition in the domain of copular structures (following the line of reasoning of Husband 2010, 2012 for stative predications). The scale structure of the adjectival complement is the source of the classification of the copular structures as an individual-level (unbounded/homogeneous) stative predication (ser) or as a stage-level (bounded/quantized) stative predication (estar).

Keywords: ser; estar; adjective; copula; standard of comparison; scalarity; aspectual composition

RESUMEN: La distribución de los adjetivos con los verbos copulativos ser y estar se ha explicado en la bibliografía en términos de la distinción entre predicados de individuo y predicados de estado. En este trabajo, mostramos que las propiedades distribucionales de los adjetivos en las oraciones copulativas con ser y estar pueden describirse mejor si se tiene en cuenta la estructura escalar del adjetivo (en términos de Kennedy & McNally 2005). Específicamente, los adjetivos de escala abierta/relativos se combinan con ser; los adjetivos de escala cerrada/absolutos se combinan con estar. A partir de esta propuesta puede construirse una teoría sobre la composición aspectual en el dominio de las predicaciones copulativas en español paralela a la existente para los SSVV/vv eventivos, y para las predicaciones estativas en general (en la línea de los trabajos de Husband 2010, 2012). La estructura escalar de los adjetivos es la base de la clasificación de las estructuras copulativas como predicaciones estativas de individuo (o no acotadas/homogéneas, con ser) o como predicaciones estativas de estado (o acotadas/cuantizadas, con estar).

Palabras clave: ser; estar; adjetivo; verbo copulativo; estándar de comparación; escalaridad; composición aspectual

1. Introduction
The goal of this paper is to account for aspectual composition in <ser/estar (‘be’), and ‘beESTAR’ henceforth) + Adjective> copular structures in Spanish (Juan es {falso / alegre} ‘Juan isSER {false / happy}’, Juan está {cansado / alegre} ‘Juan isESTAR {tired / happy}’)

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either copula) will be deliberately left out of our discussion. We will show that the distribution of adjectives with ser and estar can be better captured if the scalar properties of the adjectives (in the sense of Kennedy & McNally 2005) are taken into account. Specifically, we will claim that open-scale/relative adjectives combine with ser and closed-scale/absolute adjectives combine with estar. Following Husband’s (2010, 2012) ideas about aspentic composition on stative structures, we will argue that in copular structures in Spanish there is a homomorphism between the part-structure of the scale of the adjective selected by the copula and the aspentic/eventuality properties of the stative predications, as has also been proposed for degree achievements. Ser predications express homogeneous/unbounded/IL states; estar predications denote quantized/bounded/SL states. Ser and estar are analysed as a spell-out reflex at the VP level of the scalar properties of the adjectival complement.

The article is organized as follows. In §2 we briefly summarize the distribution of adjectives with the two Spanish copular verbs ser and estar, as it has been described in the literature. In §3 we review the main current proposals existing in the literature to explain the paradigm described in §2. We will focus on aspect/aktionsart-oriented proposals about the ser/estar distinction and, specifically, on the role given to the adjective in the compositional building up of the meaning of the stative predication within these proposals. We will devote special attention to Husband’s (2010, 2012) hypothesis, according to which IL and SL stative copular predications in English (be tall, be full) denote homogenous and quantized states respectively, a property that stems from the scalar structure of the adjectival complement of the copula (tall, full in the previous examples). Taking this proposal as a point of departure, in §4-6 we explain the distributional properties of ser and estar in Spanish. In §4, we present Kennedy and McNally’s (2005) semantic classification of adjectives, based on their scalar properties; in §5 and §6, we argue that the distribution of adjectives with the two Spanish copulas can be explained if we consider the adjective’s scalar properties. In §7, we present the syntactic structure of copular sentences that we assume in this paper, which will be the basis to explain the syntax-semantics mapping in these structures. In §8, following Husband’s (2010) semantic proposal for English copular structures, we claim that the scalar properties of adjectives are at the root of the aspentic properties of copular predications in Spanish. Finally, §8 presents our conclusions, open questions, and prospects.

2. The distribution of ser and estar

The distribution of adjectives with the two Spanish copular verbs, ser and estar (‘be_{ser}, ‘be_{estar}), is a widely studied phenomenon (see Marin 2000, Brucart 2009 or Camacho 2012 for current surveys of the relevant bibliography). As generally acknowledged in the literature, some adjectives combine (usually) only with ser, (1):

1 There is dialectal variation regarding the combination of adjectives with the copulas ser/estar. We will not deal with dialectal variation in this paper. The data described correspond to the dialect of Spanish spoken in Madrid (Spain).

2 In this paper, we restrict ourselves to the analysis of copular sentences with adjectival complements. DPs and NPs (which combine with ser), gerunds and past participles (which combine with estar, except for the verbal passive participles that combine with ser), and also PPs (which may combine with either copula) will be deliberately left out of our discussion.
others combine only with estar, (2); and, finally, there is a third group of adjectives that combine naturally with either ser or estar, (3).

(1) a. El cuadro {es / *está} auténtico.
   *The painting is authentic.*
   b. El periódico {es / *está} semanal.
   *The newspaper appears weekly.*
   c. Juan {es / *está} {cauto / discreto / inteligente}.
   *Juan is {cautious / discreet / intelligent}.*

(2) Juan {está / *es} {cansado / exhausto}.
   *Juan is {tired / exhausted}.*

(3) El niño {es / está} {pequeño / alegre / delgado / nervioso}.
   *The child is {small / happy / thin / nervous}.*

Many authors have noted that, within the group of adjectives that can be complements of either ser or estar, there are adjectives that have different meanings depending on which copula they are combined with, (4). The role of the subject may also determine which copula is selected, as the contrast between (3) and (5) shows.

(4) a. Juan es listo. / Juan está listo.
   *Juan is clever.* / *Juan is ready.*
   b. El pastel es malo. / El pastel está malo.
   *The cake is bad.* (it is of bad quality)/ *The cake is bad.* (it tastes bad)
   *The boy is lively.* / *The boy is alive.*

(5) La casa {es / *está} pequeña.
   *The house is small.*

Note also that some of the adjectives that are claimed in the literature to combine almost always with ser, cf. (1), can also co-occur with estar in certain syntactic environments, (6). These cases have been generally accounted for in terms of coercion (cf. Escandell & Leonetti 2002).

(6) a. Últimamente Juan está muy discreto.
   *Juan is being very discreet lately.*
   b. Qué inteligentes están hoy tus alumnos.
   *How clever your students are being today.*

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3 Eventive subjects combine with ser independently of the kind of adjective selected by the copula, (i):
   a. La niña {era/estaba} hermosa (*The girl was beautiful*).
   b. El elegante vuelo de los pájaros hacia el sur {era/estaba} hermoso (lit. *the elegant flying of the birds towards the South was beautiful*).

See footnote 11 and section 9 for some additional remarks about eventive subjects in copular sentences.
c. Desde su divorcio, Juan está muy cauto.

Since his divorce, Juan is very discreet.

‘Since his divorce, Juan has been very cautious.’

Additional examples of adjectives pertaining to the three classes described above are offered in (7), (8) and (9).

(7) Adjectives that combine only with ser: apto (‘suitable’), auténtico (‘authentic’), búlgaro (‘Bulgarian’), cauto (‘cautious’), constante (‘constant’; ‘persevering’), cuidadoso (‘careful’), culpable (‘guilty’), (des)cortés (‘(im)polite’), (des)leal (‘(dis)loyal’), español (‘Spanish’), evidente (‘evident’), falso (‘false’/ ‘forged’), fiel (‘faithful’), (im)prudente (‘(im)prudent’), (in)discreto (‘(in)discreet’), (in)capaz (‘(un)able’; ‘(in)capable’), (in)justo (‘(un)fair’), (in)moral (‘(im)moral’), (in)mortal (‘(im)mortal’; ‘eternal’), inocente (‘innocent’), inteligente (‘intelligent’), (in)necesario (‘(un)necessary’), presumido (‘arrogant’; ‘vain’), semanal (‘weekly’), socialista (‘Socialist’), etc.

(8) Adjectives that combine only with estar: absorto (‘absorbed’; ‘captivated’), angustiado (‘worried’; ‘distressed’), asombrado (‘atonished’), ausente (‘absent’; ‘distracted’), contento (‘happy’), desnudo (‘naked’), descalzo (‘barefoot’), enfermo (‘ill’), enojado (‘angry’), harto (‘fed up’), lleno (‘full’), maltrecho (‘battered’), muerto (‘dead’), perplejo (‘perplexed’), presente (‘present’), quieto (‘still’), satisfecho (‘satisfied’), solo (‘alone’).

(9) Adjectives that combine with both copulas: alegre (‘happy’), alto (‘tall’), (a)normal (‘(ab)normal’), bajo (‘short’), feliz (‘happy’), feo (‘ugly’), flaco (‘thin’), gordo (‘fat’), grande (‘big’; ‘tall’), hermoso (‘beautiful’), inquieto (‘restless’; ‘worried’; ‘lively’), jóven (‘young’), libre (‘free’), listo (‘clever’; ‘ready’), malo (‘bad’), mojado (‘wet’), nervioso (‘nervous’), pequeño (‘small’), orgulloso (‘proud’), tranquilo (‘calm’; ‘quiet’), transparente (‘transparent’), viejo (‘old’), vivo (‘alive’; ‘lively’).

3. Previous accounts of the ser/estar distinction

In this section we will review some of the proposals existing in the literature to account for the ser/estar distinction and the distribution of adjectives with each of the copulas.

3.1. Ser and estar predications. Individual- and stage-level predications

Spanish is a language where the notion of something’s or someone’s “state of being” (quoting Roby’s 2009 words) is expressed by means of the use of one of the two copular verbs available: ser and estar (‘beSER’, ‘beESTAR’). These two be-type verbs are not in free variation, as noted in the preceding section; one or the other copula is used depending on the type of state being described.

However, the exact “type of state” that ser-predications and estar-predications describe has never been unanimously agreed upon in the literature, and many different theories are found to explain this distinction.4

First, from the traditional perspective, ser-predications denote permanent states whereas estar-predications denote transitory states (La Tierra es redonda ‘The Earth

4 See Roby (2009), Camacho (2012) and others for an exhaustive presentation and critical review of the most recent proposals about the ser/estar distinction.
is\textsubscript{SER} round’ vs. La Tierra está contaminada ‘The Earth is\textsubscript{ESTAR} polluted’). Many authors, however, have pointed out that this intuitive characterization is inaccurate. On the one hand, many adjectives express states that can be conceived as changeable (e.g. madriderista ‘Real Madrid supporter’, barcelonista ‘Football Club Barcelona supporter’), but even in this case they combine with the copula ser: Juan es hoy madriderista pero mañana será barcelonista (lit. Juan is\textsubscript{SER} today a Real-Madrid-supporter but tomorrow he will be\textsubscript{SER} a F. C. Barcelona-supporter). On the other hand, some permanent states require the copula estar: Juan está muerto (‘Juan is\textsubscript{ESTAR} dead’).

Second, in what we consider the current standard hypothesis about the ser/estar distinction, ser-predications are analysed as individual-level predications, while estar-predications are analysed as stage-level predications. However, the terms individual (IL) and stage level (SL) are not univocal but polymorphic. The difference between IL and SL predications has been analysed in different ways, for example, on the basis of an ontological distinction in the domain of individuals (IL and SL predicates select different kinds of semantic entities as subjects, Carlson 1977), or on the basis of a discourse-related distinction (Jäger 2001, Maiernborn 2005). It has also been analysed as an event-related difference: IL predicates lack an (Davidsonian) eventive argument in their thematic grid (or have a special one), whilst SL predicates have an event argument (Kratzer 1995, Chierchia 1995). The characterization of ser and estar predications in these terms has also been challenged by many authors (see Maiernborn 2003, 2005, Schmitt & Miller 2007, Roby 2009, Camacho 2012 and others). If SL estar-predicates have an eventive argument, they should be able to occur with locative modifiers (assuming that these modifiers are sensitive to the presence of such an eventive argument), but cases like (10) are ungrammatical. Conversely, if IL predicates lack an eventive argument, IL predications should not be possible in conditional sentences, since they do not provide any variable (specifically, an eventive variable) for the quantifier to bind, but, again, examples like (11) are grammatical.

(10) *La camisa está mojada sobre la silla.
    \textit{the shirt is\textsubscript{ESTAR} wet on the chair}

(11) Siempre que María es cuidadosa, su madre se alegra.
    whenever that Maria is\textsubscript{SER} careful, her mother \textit{SE} gets\textit{happy}

‘Whenever María is careful, her mother is happy.’

The distinction between ser-predications (IL states) and estar-predications (SL states) has also been approached from the point of view of the internal temporal constitution of the state they express, that is, in terms of the aktionsart (aspect) of the predication. In this line, Luján (1981) claims that estar-predications denote perfective states (stative situations with an implied beginning or endpoint) and ser-predications denote imperfective states (without implied beginning or endpoints); similarly, Marín (2000, 2004) considers that ser-predications reflect temporally unbound states, while estar-predications reflect temporally bound states.

More recently, Husband (2010, 2012) reinterprets the individual/stage level distinction in the domain of states as a distinction between homogeneous and quantized states. IL and SL states are thus the stative counterpart of atelic/telic events, which are analysed by Husband (2010, 2012) in terms of homogeneous/quantized events, following Borer (2005). Consider the distinction between IL/SL stative predications illustrated in (12). This distinction is reflected in English in the generic vs. existential reading of the bare plural subject in each case, as generally assumed: in
(12a) the bare plural in subject position receives a generic reading; an existential reading is possible for the bare plural subject in (12b).

(12) a. Tycoons own banks. IL predication  
    b. Tycoons own these banks. SL predication [Husband 2010: 22, (32)]

According to Husband (2010: 123), (12a) exemplifies a homogeneous state, whereas (12b) exemplifies a quantized state. Homogeneous expressions are both cumulative and divisive. Failure of either of these properties gives rise to a quantized expression. The formal definitions of quantized and homogeneous expressions from Borer (2005) are given in (13):

(13) a. Quantity: $P$ is quantity iff $P$ is not homogeneous.
    b. Homogeneous: $P$ is homogeneous iff $P$ is cumulative and divisive.
      i. $P$ is cumulative iff $\forall x,y[P(x) & P(y) \rightarrow P(x \cup y)]$
         That is: $P$ is cumulative iff for all $x$ and $y$ with property $P$, the union of $x$ and $y$ also has property $P$.
      ii. $P$ is divisive iff $\forall x[P(x) \rightarrow \exists y[P(y) & y < x] & \forall x,y[P(x) & P(y) & y < x \rightarrow P(x - y)]]$
          That is: $P$ is divisive iff for all $x$ with property $P$ there is a proper part of $x$ which also has property $P$, and for all $x$ and $y$ with property $P$ if $y$ is a proper part of $x$ then the subtraction of $y$ from $x$ also has property $P$.

          [From Husband 2010: 93]

In (12a) there is an unbound number of proper substates of the state ‘own banks’ that are also states of ‘own banks’; it is a homogeneous state. Conversely, in (12b) there are no proper substates of the state ‘own this bank’ that are also states of ‘own this bank’; it is a quantized state. Crucially, Husband (2010) notes that the aspectual properties of the entire stative predication are determined by the internal argument of the transitive stative verb. A bare plural internal argument leads to an IL/homogeneous predication, while a definite DP leads to a SL/quantized predication. Bare plurals are cumulative and divisive, hence homogeneous ($banks$ has unbounded numbers of proper parts which are also $banks$); demonstrative DPs fail to be divisive, that is, there is no proper part of ‘this bank’ which is also ‘this bank’, hence they are quantized). The part-structure of the internal argument is thus mapped onto the part structure of the state. In (12a), the part-structure of $banks$ is mapped to the part structure of the state $s$ by asserting the existence of an unbounded number of proper substates $s'$ which are ownings of the parts of $banks$. In (12b), the part-structure of this bank is mapped onto the part-structure of the state $s$. Since this bank has only one part, this mapping leads to a quantized state (Husband 2010 §3.4.2.1). Note that this is reminiscent of the effect that internal arguments have in determining the aspectual properties of eventive predications (for example in incremental theme verbs: eat sandwiches vs. eat a sandwich). Finally, since stative predicates are predicates of individuals, Husband (2010: §3.4.2.3, 2012) claims that the part structure of the state is mapped to the part structure of the subject, giving rise to a generic or existential interpretation (we will explore this mapping in detail in section 8). The interpretation of the subject is ultimately conditioned by quantization of the object.

Husband (2010, 2012) extends this proposal about homogeneous vs. quantized states to copular predications: Men are tall (generic reading of the subject) vs. Men are drunk (existential reading of the subject). In this case, it is the scalar structure of
the adjective that is the source of the aspe
tual properties of the stative predications and the interpretation of the subject. Crucially, Husband (2010: 24-25) suggests in passing that the ser/estar distinction in Spanish could be related to this difference between homogeneous vs. quantized states. This is the proposal about the denotation of ser and estar predications that we will take as a point of departure in this paper. Let us analyse aspe
tual composition in copular sentences in the next subsection.

3.2. Aspe
tual composition of stative copular predications

If the difference between ser and estar-predications is understood as an aspe
tual/aktionsart-related difference, as we assume in this paper following the ideas presented in the previous subsection, then the question that should be answered is how aspect is borne out compositionally in ser/estar structures, and, more specifically, what the relative contributions of the adjective and copula are from the aspe
tual point of view. In other words, if ser-predications denote individual-level states (that is, unbounded / imperfective / homogeneous states) and estar predications denote stage-level states (that is, bounded / perfective / quantized states), what is the role of the adjective in determining this aspetual characterization, and what is the role of ser or estar?

A general idea in the literature is that the aspe
tual properties of copular constructions are attributed to or correlated with the aspe
tual properties of the adjectives selected by the copular verbs. Adjectives are thus also classified into individual-level (or imperfective) adjectives (auténtico ‘authentic’, falso ‘false / forged’, mortal ‘mortal’) and stage-level (or perfective) adjectives (ausente ‘absent’, contento ‘happy’, descalzo ‘barefoot’), and they are respectively related to the copulas ser and estar via some kind of checking mechanism or selection process. Unmarked or ambivalent adjectives, which can combine with both copulas, are also postulated: alto (‘tall’), blando (‘soft’). Luján (1981), Clements (1988), Fernández Leborans (1999) and Camacho (2012), among others, develop proposals of this kind.

A different line of analysis is taken by Romero (2009), who claims that, even if the difference between ser and estar-predications is an aspe
tual one, this difference cannot be attributed to the aspe
tual properties of the adjectives combined with the copulas: the property that determines the combination of adjectives with ser and estar has to do with the intersective/subsective distinction.

Similarly, Husband (2010) claims, with respect to stative be constructions in English, as stated above, that the distinction between IL (homogeneous) and SL (quantized) be-predications derives from the scale structure of the adjectival complement. Let us consider the aspe
tual distinction between the IL (i.e. homogeneous) stative be-predication in (14a) and the SL (i.e. quantized) stative be-predication in (14b). This distinction is reflected in the generic vs. existential reading of the subject in each case.

(14) a. Norwegians are tall. / Whiskey bottles are big.
    generic

    b. Norwegians are drunk. / Whiskey bottles are full.
    existential

[adapted from Husband 2010: 137]

According to Husband (2010), the quantificational property of the stative predication derives homomorphically from the scale structure of the adjective selected by the stative verb. Tall, big are open-scale adjectives (they denote a scalar property without minimal/maximal degree-points), as will be shown below, whereas drunk, full are closed-scale adjectives (the scalar property of being drunk/full has
minimal/maximal degree-points). The scale structure of adjectives is also defined by Husband (2010: 164) in quantificational terms (open-scales are homogenous, closed-scales are quantized; we will come back to this issue in detail in section 8), and is thus mapped to the part-structure of the state. As was the case for examples like (12), the part-structure of the state is also mapped to the part-structure of the subject, giving rise to a generic or existential interpretation.

This proposal is thus parallel to the analysis given in Kennedy and McNally (1999) and Kennedy and Levin (2008), among others, to explain aspeutical composition in the eventive domain, specifically with respect to degree achievements. According to these authors, the telicity properties of dejectival degree achievements are homomorphically mapped from the scalar properties of the base adjectives. Open-scale adjectives give rise to atelic (homogeneous) verbs, (15); (partially) closed-scale adjectives give rise to telic (quantized) verbs, (16).

(15) a. The gap between the boats widened {for / ? in} a few minutes.
   b. The recession deepened {for / ? in} several years.
(16) a. The shirt dried {?? for / in} several hours.
   b. The sink emptied {?? for / in} a few minutes.

Therefore, according to Husband’s proposal, cross-categorial aktionsart-related distinctions receive a unified account on the basis of quantificational notions:

(17)  
<table>
<thead>
<tr>
<th></th>
<th>Homogeneous</th>
<th>Quantized</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events</td>
<td>Atelic</td>
<td>Telic</td>
</tr>
<tr>
<td>States</td>
<td>IL</td>
<td>SL</td>
</tr>
<tr>
<td>Scales</td>
<td>open scale</td>
<td>Closed</td>
</tr>
<tr>
<td>Nominals</td>
<td>unspecified quantity</td>
<td>specified quantity</td>
</tr>
</tbody>
</table>

[Husband 2010: 188, 5.1]

Turning back to ser/estar in Spanish, we will claim, following Husband’s (2010: 24-25) suggestion mentioned above, that the ser/estar distinction reflects a difference between IL/homogeneous vs. SL/quantized states, as the diagnostic related to the generic vs. existential reading of the subject of the predication indicates, (18) (see Camacho 2012 for additional diagnostics).

(18) a. Una botella de agua es {transparente / larga}. Generic Reading
   a bottle of water isSER {transparent / big}
   ‘Water bottles are {transparent / big}.’
   b. Una botella de agua está {sucia / llena}. Existential reading
   a bottle of water isESTAR {dirty / full}
   ‘A water bottle is {dirty / full}.’

In the following sections, we will focus on the scalar properties of the adjectives that combine with ser and estar. We will show that open-scale/relative adjectives combine with ser while closed-scale/absolute adjectives combine with estar. In §8 we

\[\text{Note that sometimes the underlying argument of the adjective is also crucial to determine the aspeutical properties of the VP:}\]

(i) a. Kim is lowering the heat \(\rightarrow\) Kim has lowered the heat. (atelic)
   b. Kim is lowering the blind \(\rightarrow\) Kim has lowered the blind. (telic)
will analyse how the aspectual distinction between *ser* and *estar* predications are compositionally obtained at the v/VP level of the copular constructions, and how the interpretation of the subject is obtained.

Let us begin by introducing in the following section the semantic notions related to adjectival scalarity that will be necessary to develop our proposal.

4. Properties of gradable adjectives: scale structure and standard of comparison (Kennedy & McNally, 2005)

Kennedy and McNally (2005) classify adjectives into *scalar* (*alto* ‘tall’, *húmedo* ‘wet’) and *non-scalar* ones (*semanal* ‘weekly’). Scalar adjectives express a *scale*, that is, a set of degrees $S$ linearly ordered (with an increasing or decreasing relation $R$) with respect to a dimension $D$, ($< S, R, \Delta>$). Unlike non-scalar ones, these adjectives allow degree modification, as the following Spanish examples show (in this section we will only use Spanish adjectives as illustration):

(19) a. Un chico más alto que tú.
   *A boy taller than you.*
   
   b. Una toalla más húmeda que otra.
   *A towel wetter than the other one.*
   
   c. *Un periódico más semanal que otro.
   *A newspaper more weekly than other

Scalar adjectives can be further classified according to the structure of the scale they express and the standard of comparison that is required to interpret the adjective’s meaning. These two semantic parameters, scale structure and scale standard of comparison, will be dealt with in the following subsections.

4.1. Scale structure

Adjectives like *alto* (‘tall’) or *inteligente* (‘intelligent’), (20), are *open scale adjectives*, that is, they express an unbounded or open-scale: a scale with no maximal or minimal degree values. On the other hand, *closed-scale* adjectives express a scale with minimal and/or maximal degree values. Adjectives like those in (21a) are *totally closed* adjectives, since they express a scale with maximal and minimal degree values. Adjectives like (21b) (*lower-closed* adjectives) express a scale with a minimal degree value. Adjectives like (21c) (*upper-closed* adjectives) express a scale with a maximal degree value.

(20) Open-scale adjectives:
   un niño inteligente (‘an intelligent boy’), un niño alto (‘a tall boy’).

(21) Closed-scale adjectives:
   a) Totally closed adjectives:
      un vaso {lleno / vacío} (‘a full glass’, ‘an empty glass’).
   b) Lower-closed adjectives:
      una toalla húmeda (‘a wet towel’), un renglón torcido (‘a bent line’), un hombre cansado (‘a tired man’).
   c) Upper-closed adjectives:
      una toalla seca (‘a dry towel’), un renglón recto (‘a straight line’)

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These different scalar structures can be graphically described as in (22), and formally expressed as in (23).

(22) Typology of scale structures

- Open scale: $<D_{(0,1)}, R, \Delta>$
- Lower-closed scale: $<D_{[0,1)}, R, \Delta>$
- Upper-closed scale: $<D_{(0,1]}, R, \Delta>$
- Totally closed scale: $<D_{[0,1]}, R, \Delta>$

Degree modifiers are sensitive to different subparts of the scale structure of adjectives. Modifiers like totalmente or completamente (‘totally’, ‘completely’) combine with upper-closed adjectives, (24). Modifiers like ligeramente (‘slightly’) combine with lower-closed adjectives, (25).

(24) Upper-closed A: 
- una toalla {completamente / totalmente} seca
  - a towel {completely / totally} dry
  - ‘a completely dry towel’
- un renglón completamente recto
  - a line completely straight
  - ‘a completely straight line’

(25) Lower-closed A: 
- una toalla ligeramente húmeda
  - a towel slightly wet
  - ‘a slightly wet towel’
- un renglón ligeramente torcido
  - a line slightly bent
  - ‘a slightly bent line’
- un hombre ligeramente cansado
  - a man slightly tired
  - ‘a slightly tired man’

Totally-closed adjectives combine with both kinds of modifiers, (26). Open-scale adjectives are not compatible with either of them, (27).  

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6 It must be acknowledged that these diagnostics are problematic. As Kennedy & McNally (2005) show, maximizers have an additional use in which they are roughly synonymous with very, (i). The true maximality use is distinguished because it entails that the end of a scale has been reached. Therefore, an example like #The line is totally straight, though you can make it straighter is a contradiction. Examples like (iia) and (iib) are not contradictory, vs. (iib’).

(i) a. I am totally intrigued.
   b. Está completamente tonto (lit. he is completely stupid).

(ii) a. I’m totally intrigued by bowling, and Kim is even more intrigued by it than I am.

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ASPECTUAL COMPOSITION IN <SER/ESTAR + ADJECTIVE> STRUCTURES

(26) Totally-closed A: un vaso {completamente / ligeramente} {lleno / vacío}
    a glass {completely / slightly} {full / empty}
    ‘a {completely / slightly} {full / empty} glass’

(27) Open-scale A:
    *un niño {completamente / totalmente / ligeramente} {alto / inteligente / gordo…}
    a boy {completely / totally / slightly} {tall / intelligent / fat}
    ‘a {completely / totally / slightly} {tall / intelligent / fat} boy’

4.2. Standard of comparison: relative vs. absolute adjectives

According to Kennedy and McNally (2005), adjectives can also be classified into relative and absolute depending on the way their standard of comparison is established (for different ways of understanding the relative/absolute distinction, see McNally 2011, Toledo & Sassoon 2011).

Relative adjectives, like alto ‘tall’, have a context-dependent interpretation. In order to determine the truth of (28), a standard value for the property relative to a comparison class must be established: if the boy is 150 centimeter tall, the sentence will be true if the comparison class consists of four-year-old children, since the height of the boy probably exceeds the standard degree value for that class; it will be possibly false if the comparison class is comprised of eight-year-old children playing in a basketball team. Relative adjectives, according to Kennedy and McNally, give rise to entailments like (29). Similarly, with relative adjectives, sentences like (30) are not contradictions, since the truth conditions of the sentence are based on the comparison classes established for each use of the adjective:

(28) Ana vio a un niño {alto / inteligente / delgado}.
    Ana saw to a boy {tall / intelligent / thin}
    ‘Ana saw a {tall / intelligent / thin} boy.’

(29) a. Ana vio a un niño más {alto / delgado} que los demás --/-->
    Ana saw to a boy more {tall / thin} than the others
    Ana vio a un niño {alto / delgado}.
    Ana saw to a boy {tall / thin}
    ‘Ana saw a boy {taller / thinner} than the others’ --/--> ‘Ana saw a {tall / thin} boy.’

b. Ana vio a un político más inteligente que los demás --/-->
    Ana saw to a politician more intelligent than the others
    Ana vio a un político inteligente.
    Ana saw to a politician intelligent
    ‘Ana saw a politician more intelligent than the others’ --/--> ‘Ana saw an intelligent politician.’

Similarly, a degree modifier like completamente is compatible with adjectives lacking a maximal degree when it quantifies over entities other than degrees. As Toledo & Sassoon (2011b: 145, fn 7) note, degree modifiers can quantify over different sort of entities: “For example, completely different can be interpreted as conveying ‘different in every respect’; hence, in this example, completely operates over a domain of ‘respects’, rather than over degrees”.

b. Eres completamente tonto, pero tu hermano es todavía más tonto que tú (lit. you are completely stupid, but your brother is even more stupid than you).
b’. #Este vaso está completamente lleno, pero ese está más lleno (lit. this glass is completely full, but that one is fuller).
(30) a. Estos niños altos son jugadores de baloncesto bajos.
   ‘These tall boys are short for basketball players.’

b. Este niño de dos años alto no es una persona alta.
   ‘This tall two-year-old boy is not a tall person.’

c. Este jugador de sumo delgado no es una persona delgada.
   ‘This thin sumo wrestler is not a thin person.’

d. Este jugador de fútbol inteligente no es un entrenador inteligente.
   ‘This intelligent football player is not an intelligent coach.’

e. Este elefante pequeño no es un animal pequeño.
   ‘This small elephant is not a small animal.’

The interpretation of absolute adjectives, by contrast, is not context-dependent. Consider the lower-closed adjective húmedo (‘wet’). The example in (31a), Una toalla húmeda (‘a wet towel’), implies that the towel has a non-zero degree of wetness, so that the standard value required to interpret the predicate is the minimal degree value on the scale. These adjectives are called minimal-standard adjectives. In a similar way, (31b), una toalla seca (‘a dry towel’) means that the towel has the maximal value on the scale of the relevant property. Seca is thus in this case a maximal-standard adjective. Absolute adjectives, therefore, do not require a standard value relative to a contextually determined comparison class in order to be interpreted. For a towel to be wet or dry, it is not necessary to compare the towel to other more or less wet/dry things. The standard value needed to evaluate the predication is the minimal or maximal degree value on the scale that the adjective expresses. With absolute adjectives, sentences like (32) are contradictions.

(31) a. una toalla húmeda
   a towel wet
   ‘a wet towel’

b. una toalla seca
   a towel dry
   ‘a dry towel’

(32) a. Esta tela húmeda es una hamaca seca.
   this cloth wet is a hammock dry
   ‘This wet piece of cloth is a dry hammock.’

b. Esta tela seca es una toalla húmeda.
   this cloth dry is a towel wet
   ‘This dry piece of cloth is a wet towel.’

Kennedy and McNally (2005), note that, although the scalar properties of adjectives and the kind of standard of comparison they have are distinct semantic properties, there exists a strong correlation between them. Open-scale adjectives (alto, ‘tall’) are relative adjectives, with context-dependent standards. This correlation is exception-less. Totally and partially closed-scale adjectives are generally absolute adjectives whose standard of comparison is tied to the maximal or minimal point of the scale they express. For example, the lower-bound adjective húmedo (‘wet’) has a
minimal-standard; the upper-closed adjective seco (‘dry’) has a maximal standard, as we have shown above. Therefore adjectives like alto will be referred to as open-scale/relative adjectives; adjectives like húmedo or seco will be classified as closed-scale/absolute adjectives (in the following, we will use for short the terms relative and absolute adjectives).

Now that we have introduced the difference between open-scale/relative adjectives and closed-scale/absolute adjectives, we will show, in the following section, how the scalar properties of adjectives determine their combination with the copulas ser and estar. Section 6 will be devoted to analysing the properties of those adjectives that can combine with both copulas. In §8 we will explore the composition of aspect and the interpretation of subjects in copular sentences.

5. Ser/estar and the gradability properties of adjectives

Our proposal is that the scalar properties of adjectives determine their combination with copular verbs in Spanish. Specifically, our claim is that estar combines with absolute adjectives, whose standard of comparison is the minimal or maximal degree value on the scale they express; and ser combines with relative adjectives, whose standard of comparison is contextually determined. Considering the examples analysed in the previous section, absolute adjectives like (pared) {seca / húmeda / recta} (‘{dry / wet / straight} wall’) combine with estar, (33a); relative adjectives like (niño) {alto, delgado, inteligente} (‘{tall / thin / intelligent} boy’) combine with ser, (33b) (recall that adjectives like alto / delgado are claimed to combine naturally with both ser and estar; inteligente is generally combined with ser, although it can co-occur with estar in certain contexts; the combination of these adjectives with estar will be dealt with in §6).

(33)  a. La pared está {seca / húmeda / recta} [absolute adjectives]
          ‘The wall is estar {dry / wet / straight}.
     b. Juan es {inteligente / alto / delgado} [relative adjectives]
          ‘Juan is ser {intelligent / tall / thin}.

However, nothing blocks the possibility of a closed-scale adjective having a relative standard of comparison. In fact, an adjective like transparente (vestido transparente ‘transparent dress’) seems to be a closed-scale but relative adjective (thanks to V. Demonte for suggesting this example):

(i)   Un vestido completamente transparente.
          ‘a dress completely transparent’
          ‘a completely transparent dress’
(ii)  En la cocina, pon una cortina más transparente que la del salón --/->
          in the kitchen, put a curtain more transparent than of the-of living-room
          pon una cortina transparente.
          put a curtain transparent
          ‘In the kitchen, put a curtain more transparent than that of the living-room --/->
          Put a transparent curtain in the kitchen.’

These kind of cases should be investigated to explore whether it is the scalar structure of the adjective per se or the property of having a context-dependent standard of comparison or a fixed one (that is, the relative vs. absolute distinction) that determines the distribution of adjectives with the copular verbs. Note that precisely this debate has taken place with respect to degree achievements. Authors like Rothstein & Winter (2004) argue that the scale structure of adjectives (that is, the fact that the adjective has an open-scale vs. a closed-scale) determines telicity in deadjectival verbs. Kearns (2003) claims that deadjectival verbs are telic or atelic depending on the standard value of the adjectival base: adjectives with relative standards give rise to atelic deadjectival verbs; adjectives with absolute standards give rise to telic deadjectival verbs. Some authors claim that both proposals are on the right track, by virtue of the correlation stated in the text. Exploring this issue is a matter for further research.
Crucially, absolute and relative adjectives give rise to different entailment patterns in copulative sentences, as noted by Kennedy and McNally (2005). Minimal-standard adjectives give rise to the entailment pattern in (34a). If the standard for húmedo ‘wet’ (in suelo húmedo ‘wet floor’, encimera húmeda ‘wet counter’) lies on a minimum endpoint, the comparative entails that the floor’s wetness exceeds that standard and the floor therefore counts as wet. Maximal-standard adjectives give rise to the entailment in (34b). If the standard of seco (in suelo seco, encimera seca ‘dry floor/counter’) lies on a maximum endpoint, the comparative entails that the counter does not reach that maximum and therefore is not dry.

(34) a. Minimal-standard adjectives: X is more ADJ than Y \( \rightarrow \) X is ADJ

El suelo está más húmedo que la encimera \( \rightarrow \) El suelo está húmedo

\textit{the floor is} \textit{more wet} \textit{than the counter} \textit{the floor is} \textit{wet}

‘The floor is wetter than the counter’ \( \rightarrow \) ‘The floor is wet.’

b. Maximal-standard adjectives: X is more ADJ than Y \( \rightarrow \) Y is not ADJ

El suelo está más seco que la encimera \( \rightarrow \) La encimera no está seca

\textit{the floor is} \textit{more dry} \textit{than the counter} \textit{the counter} \textit{not is} \textit{dry}

‘The floor is drier than the counter’ \( \rightarrow \) ‘The counter is not dry.’

Since relative adjectives select a contextual midpoint standard (in an open-scale), they give rise to entailments like (35). The comparative means that Juan is taller/thinner than Pedro, but it does not entail that either of them is above or below the selected contextual standard.

(35) Relative adjectives: X is more ADJ than Y --\( -/\rightarrow \) X/Y is (not) ADJ

Juan es más {alto / delgado / inteligente} que Pedro --\( -/\rightarrow \)

\textit{Juan} \textit{is} \textit{more} \textit{tall} / \textit{thin} / \textit{intelligent} \textit{than} Pedro

\{Juan / Pedro\} \textit{(no)} es \{alto / delgado / inteligente\}

\{Juan / Pedro\} \textit{is} \textit{not} \{tall / thin / intelligent\}

‘Juan is \{taller / thinner /more intelligent\} than Pedro’ --\( -/\rightarrow \) ‘{Juan / Pedro} is (not) \{tall / thin / intelligent\}’.

Let us return to the generalizations presented in §2 regarding the distribution of adjectives with the copulas ser/estar. Recall that adjectives like cauto, discreto, (1c), repeated here as (36a), are claimed to combine with ser (the use of these adjectives with estar, recall (6), will be analysed in the following section). If our proposal is on the right track, these lexical items should behave like open-scale/relative adjectives with respect to the diagnostics stated above. (36b) shows that these adjectives indeed express an open-scale, since combination with proportional modifiers is not possible. And the entailment patterns in (37) show that cauto, discreto are relative adjectives.

(36) a. Juan es {cauto / discreto}. (*Juan está {cauto / discreto})

‘Juan \textit{is} \textit{cauto} / \textit{discreto}.’

b. *Un niño \{completamente / ligeramente\} {cauto / discreto}.

\textit{a boy} \textit{completely} / \textit{slightly} \textit{cautious} / \textit{discreet} \textit{boy.}

(37) Este médico\{cauto / discreto\} no es una persona \{cauta / discreta\}.

\textit{this doctor} \textit{cautious} / \textit{discreet} \textit{not is a} \textit{person} \textit{cautious} / \textit{discreet} \textit{doctor} \textit{is not a} \textit{cautious} / \textit{discreet} \textit{person.}’
The entailment patterns in (38) show that these adjectives (let us take *cauto* to illustrate) behave as relative adjectives in copular structures.

(38) Relative adjectives: X is more ADJ than Y ---/--> X/Y is (not) ADJ
a. Juan es más cauto que Pedro ---/--> [Juan /Pedro] (no) es cauto
   *Juan is*ser, more cautious than *Pedro* [Juan /Pedro] (not) is*ser, cautious
   ‘Juan is more cautious than Pedro’ ---/--> ‘[Juan /Pedro] is (not) cautious.’
   b. Juan es más cauto que Pedro, aunque los dos son incautos.
   ‘Juan is more cautious than Pedro, although both are incautious.’

By contrast, adjectives claimed to combine only with *estar* –recall the examples in (2), also (39)— are absolute adjectives; cf. also *Un jugador de fútbol enfermo es una persona enferma* (‘An ill football player is an ill person’); *Un jugador de baloncesto cansado es un hombre cansado* (‘A tired basketball player is an ill person’); *Un vaso lleno es un recipiente lleno* (‘A full glass is a full container’). *Enfermo* (‘ill’), *cansado* (‘tired’), *lleno* (‘full’) and *vacío* (‘empty’) are all adjectives with scale closures, as shown in (40). The entailment patterns in (41) show that these adjectives (let us illustrate with *cansado and lleno*) behave like absolute adjectives in copular sentences.

(39) Juan {está / *es} {cansado / enfermo}; El vaso {está / *es} {lleno / vacío}.
   ‘Juan is*estar,*ser {tired / ill}’; ‘The glass is*estar,*ser {full / empty}.’
(40) ligeramente {cansado / enfermo}; completamente {lleno / vacío}
   ‘slightly {tired / ill}’; ‘completely {full / empty}’
(41) a. Minimal standard adjectives: X is more ADJ than Y ---/--> X/Y is ADJ
   Juan está más cansado que Pedro → Juan está cansado.
   ‘Juan is*estar,*ser, more tired than Pedro’→ ‘Juan is tired.’
   b. Maximal standard adjectives: X is more ADJ than Y ---/--> X/Y is NOT ADJ
   El vaso está más lleno que la taza → La taza no está llena.
   the glass is*estar,*ser more full than the cup the cup not is*estar,*ser full
   ‘The glass is fuller than the cup’→ ‘The cup is not full.’

Finally, non-scalar adjectives combine with *ser*, (42) (recall 1b).

(42) Ese edificio es municipal; El periódico es semanal.
   *that building is*ser, municipal; *the newspaper is*ser, weekly

Adjectives like *auténtico* (‘authentic’), *falso* (‘forged’) or *capaz* (‘able’), (recall 1a and 7), which combine only with *ser*, also seem to be non-scalar. These adjectives do not tolerate degree modifiers or appear in comparative sentences.

(43) a.*Este diamante es muy auténtico.
   *this diamond is*ser, very authentic
b. *Este cuadro de Picasso es más auténtico que aquel.
   *this painting by Picasso is*ser, more authentic than that (one).
c. *El águila es más capaz de volar que el pingüino.
   *the eagle is*ser, more capable of fly than the penguin

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8 In this sense, classifying adjectives combine always with *ser*:
(i) Esa ballena es azul; El vino es blanco.
   *this whale is*ser, blue; *the wine is*ser, white
To summarize, in this section we have shown that open-scale/relative adjectives combine with *ser* and closed-scale/absolute adjectives combine with *estar*. It is interesting to note that this proposal is supported by some recent studies in language acquisition, namely Holtheuer (2003), who shows that children are sensitive to the relative / absolute distinction when they use copular verbs with adjectives in Spanish.

Nothing has been said up to this point with respect to adjectives that combine with both copulas. In the next section we will show that not only adjectives like *alto* (‘tall’), *pequeño* (‘small’) and *delgado* (‘thin’) combine with *ser* and *estar*, as has been claimed in the literature; also adjectives like *seco* (‘dry’, ‘rough’) (described as an adjective that combines with *estar*), on the one hand, and *capaz* (‘capable, able’) and *fier, leal* (‘faithful, loyal’) (regarded as adjectives that combine exclusively with *ser*), on the other, can combine with either copula in certain contexts. Crucially, these adjectives behave as relative when combined with *ser*, and as absolute when combine with *estar*. The analysis of these cases will lead us to suggest that the relative/absolute distinction is a property that is not lexically encoded in adjectival elements, but rather introduced in the syntax by functional structure. Therefore, any adjective could, in principle, receive an interpretation as a relative or absolute adjective. Consequently, we expect that any adjective can combine with *ser* and *estar*.

6. Adjectives that combine with *ser* and *estar*

As noted in §2 (recall (3)), there are adjectives that can combine naturally with either *ser* or *estar*. Adjectives like *alto* (‘tall’), *bajo* (‘short’) and *inquieto* (‘nervous’) combine with either of the copulas without any change in the dimension expressed, (44).

(44) a. El niño {es / está} {alto / bajo}.
   ‘The boy is *ser/estar* {tall / short}.’

b. Juan {es / está} inquieto.
   ‘Juan is *ser/estar* nervous.’

However, crucially, when combined with *ser*, these adjectives show a *relative* behaviour; by contrast, when combined with *estar*, they show an *absolute* behaviour, as corroborated by the entailment patterns they give rise to, (45)-(46).^9

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^9 Note that the alternation between the two copulas is sometimes restricted by the kind of subject selected in the construction, as the contrast between (i) and (ii) shows.

(i) a. La niña es {grande / pequeña}.
   *the girl is *ser/estar {big / small}.

b. La niña está {grande / pequeña}.
   *the girl is *ser/estar {big / small}.

(ii) a. La casa es {grande / pequeña}.
   *the house is *ser/estar {big / small}.

b. La casa está {grande / pequeña}.
   *the house is *ser/estar {big / small}.

In (i), it is claimed that the girl is tall (lit. ‘big’) with respect to a context-dependent comparison class (e.g. little girls at school); in (ii), *grande* (lit. ‘big’) is interpreted as an absolute adjective, with a fixed, non-context-dependent, standard value: the standard value will be the minimal degree of the property in this case –this fixed degree seems to be established according to a specific discourse context, cf. Maienborn (2005). The sentence means, thus, that the girl has a non-minimal degree of the property ‘bigness’ relative to a discourse-specific situation. Note that (iib) becomes grammatical if a discourse situation is built that makes it possible to attribute to the house a non-minimal degree in a closed scale of ‘bigness’ –as would be the case in a magic show in (iii)–. The fact that no comparison class is needed to evaluate the property in (ib) and (iib) is behind the claim made by Falk (1979) that ambivalent adjectives combined with *ser* indicate a comparison between an entity and other entities of
(45) a. Mi hija es más alta que tu hijo, pero ella no es alta.
   my daughter isSER more tall than your son, but she not isSER tall
   ‘My daughter is taller than your son, but she is not tall.’
b. *Mi hija está más alta que tu hijo, pero ella no está alta.
   my daughter isESTAR more tall than your son, but she not isESTAR tall
   ‘My daughter is more tall than your son, but she not is.’

(46) a. Mi hijo es más inquieto que el tuyo, aunque los dos son niños tranquilos.
   my son isSER more restless than the yours, although the both areSER tranquilos.
   ‘My son is more restless than yours, although both of them are calm boys.’
b. *Mi hijo está más inquieto que el tuyo, aunque los dos están niños tranquilos.
   my son isESTAR more restless than the yours, although the both areESTAR tranquilos.
   ‘My son is more restless than yours, although both of them are calm boys.’

Within the pool of adjectives that combine with both copulas, as stated in §2, there are adjectives like those in (4) and (47) that refer to different dimensions when combined with each of the copulas (sometimes different kinds of subjects are also required in each case).

(47) a. Juan es malo; El pastel es malo.
   ‘Juan isSER bad’; ‘The cake isSER bad (it is of bad quality).’
   a’. Juan está malo; El pastel está malo.
   ‘Juan isESTAR ill (lit. bad)’; ‘The cake isESTAR bad (it tastes bad).’
b. Juan es bueno; El pastel es bueno.
   ‘Juan isSER good’; ‘The cake isSER good (it is of good quality).’
b’. Juan está bueno; El pastel está bueno.
   ‘Juan isESTAR handsome (lit. good)’; ‘The cake isESTAR bad (it tastes bad).’

Crucially, these adjectives are absolute when combined with estar and relative when combined with ser, as shown in the entailments in (48).

(48) a. Mi pastel es {más malo / peor} que el tuyo,
   my cake isSER {more bad / worse} than the yours,
   aunque ambos son buenos.
   although both areSER good
   ‘My cake isSER worse than yours although both areSER good.’
b. #Mi pastel está más malo que el tuyo.
   my cake isESTAR more bad than the yours

its class (general norm), whereas ambivalent adjectives combined with estar describe a comparison between the actual state of an entity and what we consider habitual for that entity (individual norm).

(iii) Cuenta 1, 2, 3 y la casa estará pequeña
   ‘Count one, two, three… and the house will beESTAR small.’

10 The use of estar in examples like El pastel está {malo / bueno} (‘The cake isESTAR {good / bad}’), El jamón serrano está delicioso (‘This serrano-ham isESTAR delicious’) have been dubbed evidential in the literature. As an anonymous referee notes, in these examples, the temporal point of the sentence refers to the perception of the state by the speaker, but the property is assumed to refer to the individual. These examples pose a challenge for the analysis of the adjectival complements of copular verbs in terms of individual vs. stage adjectives, but not to the proposal developed in the text. However, how to derive the evidential reading within our proposal is unclear to us at this point.
aunque ambos están buenos.

Although both are good

c. Mi pastel está más malo que el tuyo → Mi pastel está malo.

my cake is more bad than the yours my cake is bad

‘My cake is worse than yours’ → ‘My cake is bad.’

At this point, it is important to note that even adjectives that have been claimed to combine only with ser can be found in combination with estar, and, conversely, adjectives that have been claimed to combine only with estar can be combined with ser. Let us take this second case first.

Consider an adjective like seco (‘dry’) in (49a). Although seco was classified as a closed-scale/absolute adjective in §4, and behaves as such when combined with estar—recall (34); also (49b)—examples like (50) where seco combines with ser are also possible. Admittedly, in (50a), seco (‘brusque’) refers to a different dimension and requires an animate (human) subject. In (50b), on the other hand, the adjective refers to the same dimension as in (49). Crucially, seco in un tipo seco (‘a brusque fellow’) or un clima seco (‘a dry climate’) is interpreted as a relative, and the adjective also behaves as relative in the copular structures of (50), as shown in the entailments in (51).

(49)  a. El suelo está seco.

‘The floor is dry.’

b. El suelo está más seco que la encimera

the floor is more dry than the counter

⇒ La encimera no está seca.

the counter not is dry

‘The floor is drier than the counter’ ⇒ ‘The counter is not dry.’

(50)  a. Juan es seco.

Juan is dry

‘Juan is very brusque.’

b. El clima es seco.

‘The climate is dry.’

(51)  a. Juan es más seco que Pedro aunque los dos son sociables.

Juan is more dry than Pedro although the both are friendly

‘Juan is more brusque than Pedro although both are friendly.’

b. El clima de Lisboa es más seco que el de Barcelona, the climate of Lisbon is more dry than the of Barcelona, pero ninguno de los dos es seco.

but none of the two is dry

‘The climate of Lisbon is drier than the climate of Barcelona, but neither of them is dry’

Finally, remember that some of the predicates included in the group of adjectives that combine with ser can co-occur with estar in certain syntactic environments, (52), recall (6). Although we cannot provide a proposal about what these syntactic environments have in common (exclamative sentences, predications linked to a definite temporal point, etc.), it is crucial to point out that these adjectives show
absolute behaviour with respect to the diagnostics used in this paper when combined with estar, (53). \footnote{Note that this coercion process is not possible with eventive subjects: (i) Juan es descortés. \textquoteleft Juan is_{ser} impolite.\textquoteleft (ii) En la fiesta, Juan estuvo muy descortés con ese comportamiento. \textquoteleft In the party, Juan was_{estar} very impolite with that behaviour.\textquoteleft (iii) Su comportamiento fue / *estuvo muy descortés. \textquoteleft His behaviour was_{ser}/*_{estar} very impolite.\textquoteleft}

(52) a. ¡Qué inteligentes están los alumnos (hoy)!
   how clever are_{estar} the students (today)!

b. Hoy Juan está capaz de todo.
   today Juan is_{estar} capable of everything

c. Desde que ella fue descubierta, tú estás muy leal al presidente.
   since that she was discovered, you are_{estar} very loyal to the president
   \textquoteleft Since she was discovered, you have been very loyal to the president.\textquoteleft

(53) a. Ana es más inteligente que Juan, pero Ana no es inteligente.
   Ana is_{ser} more intelligent than Juan, but Ana not is_{ser} intelligent
   ‘Ana is more intelligent than Juan, but Ana is not intelligent.’

b. *Hoy Ana está más inteligente que Juan,
   today Ana is_{estar} more intelligent than Juan,
   pero Anano está inteligente.
   but Ana not is_{estar} intelligent

Data like (52) have been accounted for in terms of coercion in those proposals that argue that the distribution of adjectives with ser and estar is explained on the basis of the IL/SL distinction. Adjectives like leal (‘loyal’) or inteligente (‘intelligent’) are classified as IL adjectives, therefore they are combined with ser. When combined with estar, IL adjectives are coerced into a SL reading. As proposed by Escandell and Leonetti (2002: 163), “coercion is a reinterpretation process set up to eliminate the conflicts between the semantic content of a constituent and the requirements of other elements in the same construction”.

Within the proposal developed in this paper, analysing these kind of examples as cases of coercion would have the following implications: (a) adjectives are lexically either relative (e.g. alto ‘tall’, inteligente ‘intelligent’) or absolute (e.g. seco ‘dry’) (being relative or absolute is thus a lexical property of adjectives); (b) ser and estar select for relative and absolute adjectives respectively; copular verbs have thus selection properties related to the scalar properties of their complements; (c) ser and estar trigger coercion of their adjectival complements: ser coerces absolute adjectives into relative ones, (50); and estar coerces relative adjectives into absolute ones by fixing their standard of comparison (hence bounding the scale). Alternatively we would have to assume that many adjectives are lexically both relative and absolute, in order to explain how the selectional restrictions of the copular verbs are satisfied.

However, we would like to adopt a different theoretical perspective about the set of data discussed in this section that avoids arguing for a double lexical classification of adjectives as relative and absolute, and also avoids massive coercion. We think that the fact that many adjectives show variable behaviour with respect to their classification as relative or absolute adjectives (hence the possibility of combining them with both copulas) is better accounted for if an exo-skeletal analysis of these
scalar properties is adopted. Being relative or absolute should be considered, thus, not an intrinsic lexical property of adjectives but rather a property built up in the syntax.

6.1. Variable behaviour of adjectives. An exo-skeletal approach

Exo-skeletal approaches to the scalar properties of adjectives, whereby the scale structure of adjectives is not part of the adjective’s lexical representation, have been adopted in Park (2008) and Husband (2010). Let us briefly present Husband’s (2010) ideas, developed to account for the variable behaviour of an adjective like dry in English. As already noted in Kennedy and McNally (2005), dry behaves as a relative adjective in (54) and as an absolute one in (55).12

(54) a. This region of the country is drier than that one (though both are dry).
   b. This region of the country is not dry (but it’s not wet either).

(55) a. The glasses are drier than the plates (#though both are dry).
   b. The glasses are not dry (#though they’re not wet either).

Kennedy (1999) analyses adjectives as measure functions (type <e,d>). To derive properties of individuals from measure functions, Kennedy proposes that adjectives are combined with a null degree morpheme that gives rise to the positive form of the adjective. The denotation of the pos morpheme is offered in (56). The pos morpheme creates a property of individuals and also introduces the standard of comparison via the relation R. R is the relation that holds between the degree returned by the measure function g(x) and the standard of comparison, d. Since the relation R depends in part on the scale structure of the adjective (remember the correlation between closed-scale adjectives and absolute standards and open-scale adjectives and relative standards), there is an interaction between the pos morpheme and the scale structure of the adjective.

(56) $[[\text{pos}]] = \lambda g \in D_{<e,d>} \lambda d, h, x [R (g(x)) (d)]$

Husband (2010: 150) claims, in order to explain the variable behaviour of dry, “that there are multiple pos morphemes in the grammar, but that adjectives themselves do not encode a scale structure as part of their lexical representations. Instead, the grammar allows all adjectives to occur freely with any pos morpheme”. Pos-open, (57a), gives rise to open-scale/relative adjectives. These adjectives express a property of individuals such that the measurement of the individual with respect to the dimension of the scale is greater than some contextually provided standard of comparison. Pos-lower-closed, (57b), and Pos-upper-closed, (57c), give rise to lower-closed-scale/absolute adjectives and upper-closed-scale/absolute adjectives. These adjectives express a property of individuals such that the measurement of that individual with respect to the dimension of the scale is greater than the minimum on

12 Deverbal adjectives are expected not to show a free variable behaviour if, as Kennedy & McNally (1999) claim, their scalar structure is related to the event structure of the verb they are derived from (see Gallego & Uriagereka 2009). Park (2008) notes that adjectives show variable behaviour even with respect to the property of being scalar/non-scalar, (i), (ii). For her, gradability per se is carried by functional structure.

(i) {El vaso / Juan} es japonés.
   ‘The glass / Juan’ is Japanese.’ (relational adjective, non-scalar)

(ii) {Juan / El vaso} es muy japonés.
    {Juan / the glass} is very Japanese
    ‘Juan behaves in a Japanese manner’; ‘The glass has a Japanese style.’
the scale, in the former case, and at the maximum point on the scale, in the latter (Husband 2010: 144-145).

(57)  
   a. \[[\text{pos}_{\text{open}}]\] = λg ∈ D_{<,\text{ab}}. λx [(g(x)) ≥ \text{std}(g)]
   b. \[[\text{pos}_{\text{lower-closed}}]\] = λg ∈ D_{<,\text{ab}}. λx [(g(x)) > \text{min}(g)]
   c. \[[\text{pos}_{\text{upper-closed}}]\] = λg ∈ D_{<,\text{ab}}. λx [(g(x)) = \text{max}(g)]

So, returning to dry, Husband (2010:150) claims that it can occur with any pos morpheme in the grammar. When dry combines with pos_{open}, a relative standard is required and the concept underlying dry coerces to allow an open-scale meaning. When dry occurs in the environment of pos_{upper-closed}, a maximal absolute standard is required and the concept underlying dry coerces to allow this meaning.\(^{13}\)

Under this account, the scalar properties of dry, or any adjective, are seen as a consequence of it occurring in the environment of a particular type of pos morpheme. In this paper, we will analyse the pos morpheme as the head of a syntactic projection DegP, merged above AP. With respect to the copula, we claim that the verbs ser and estar are V heads, spell-out reflexes of the scalar properties of the adjective (remember that variable scalar behaviour of adjectives also obtains in non-predicative contexts, when the adjective is a modifier inside the DP, and therefore it is not the copular verb which triggers the relative/absolute character of the adjective). Let us turn to the syntax of copular sentences in the next section. Aspectual composition in copular sentences will be examined in §8.

7. The syntax of copular sentences

The syntactic structure of copular sentences that we will take as a point of departure to account for aspectual compositionality in these structures is that shown in (58). In the previous section we have argued for the proposal that scalar properties of adjectives are severed from lexical items themselves, and encoded in a syntactic projection DegP, whose head is the pos morpheme. Consequently, a lexical item like seco (‘dry’), alto (‘tall’), or indeed any adjective, can be interpreted as a relative or absolute adjective. With respect to the distribution of adjectives with the copular verbs, we assume that ser and estar are generated as Vs. They are thus lexical (although meaningless) verbs, and not auxiliaries generated in T (see, among others, Adger & Ramchand 2003, for the predicative copula in Irish; Matushansky 2002, for seem in English).\(^{14}\) Ser and estar are generated in the same position and project the

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\(^{13}\) The fact that some adjectives do not show (totally free) variable behaviour in this respect must be related to the inability of the concepts that the adjectives evoke to be modeled according to the scalar requirements imposed by the pos morpheme (moreover, as Husband 2010 claims, it must be accepted that extralinguistic factors play a role in our acceptability judgments).

\(^{14}\) The most widespread proposal for the structure of copular sentences claims that the subject of the clause and the adjectival predicate are generated within a Small Clause (the copula is taken to be a verbal node selecting the SC, the head of the SC, or alternatively it is merged in T, as an auxiliary verb). The semantic proposal we will develop in the following section could be adapted to compositionally obtain from a structure like (i), where the copula selects for a SC constituent:

(i) [\[\overset{\text{Voice}}{\text{DP}}, \overset{\text{Voice}}{\text{Voice}}, \overset{\text{Copula}}{\text{SC=DegP}}, \overset{\text{Deg}}{\text{I}}, \text{[Deg [pos SA]]]}\]]

However, SCs behave syntactically as constituents, contrary to what happens with the complex subject + adjective in copular sentences, as shown in (ii), (iii).

(ii) A: Tú consideras a Juan guapo.
    B: No, yo lo que considero es a Juan listo.

    ‘A: You consider John handsome. B: No, what I consider is that Juan is bright’.

53
same syntactic structure, each of them being a spell-out reflex of the properties of their complements. *Ser/estar* are thus reflections of the essentially meaningless copula of predication argued for in Russell (1919: 119) and Partee (1998), (59). Finally, we follow Kratzer (1996) and Husband (2010) in assuming that the external argument of stative predications is introduced by a Voice head, as is the case of the subject of eventive verbs. Voice introduces the external argument of the copular predication, with the theta role of holder.

(58) S

\[ SV \]

\[ \text{DP} \]

\[ \text{Voice'} \]

\[ \text{Voice} \]

\[ \text{SV} \]

\[ V_{\text{copula}} \]

\[ \text{DegP} \]

\[ \text{ser/estar} \]

\[ \text{pos} \]

\[ \text{A} \]

(59) \[ \llbracket \text{be}_{\text{pred}} \rrbracket = \lambda P \chi [P(x)] \]

In the following section, taking (58) as a basis, we will account for aspectual composition in copular sentences.

8. Aspectual composition in copular sentences

In this section we will try to explain how aspect is borne out in copular structures, if the copulas (*ser* and *estar*) are aspectually inert, as we claim. As was stated in §3, *ser*-predications denote individual-level states—that is, homogeneous states—and *estar* predications denote stage-level states—that is, quantized states; accordingly, indefinite subjects may have a generic reading in sentences with *ser*-predications, and they are existentially interpreted in sentences with *estar*-predications, as shown in (18), and also in (60), (61) and (62).

(60) a. Un niño es alto.
   ‘A boy *is* tall.’

b. Un vaso está lleno.
   ‘A glass *is* full.’

(61) a. Un jugador de baloncesto es alto.

b. Un jugador de baloncesto está alto.
   ‘A basketball player *is* tall.’

(62) a. Una botella de whiskey es oscura.

b. Una botella de whiskey está llena.
   ‘A whiskey bottle *is* dark.’

\[ A: \text{Juan es guapo.} \]
\[ Juan is handsome \]

\[ B: *\text{No, lo que es es Juan listo.} \]
\[ no, it that is is Juan bright \]

‘A: Juan is nice. B: No, what it is, is that Juan is bright.’

15 This section basically constitutes an extension, reformulated and adapted in some respects, of Husband’s (2010) ideas about aspectual composition in copular *be*-sentences in English.
In this section, we show, as already noted in §3 following Husband’s (2010) ideas, that the aspectual/quantificational properties of the ser/estar-predications derive homomorphically from the scale structure of the adjectives selected by the stative verbs (remember that ser/estar are aspectually inert in our proposal). In (60a), (62a) alto ‘tall’ and osuro ‘dark’ are open-scale/relative adjectives; in (60b), (62b) alto ‘tall’ and lleno ‘full’ are closed-scale/absolute adjectives. As claimed by Husband, scale structure is a special type of part-structure sensitive to quantization (open-scales are homogenous and closed-scales are quantized) that is mapped to the part-structure of the state. The part-structure of the state is subsequently mapped to the part-structure of the subject, giving rise to its generic or existential interpretation. In the remainder of this section, we will explain in detail these steps in the semantic interpretation of copular sentences; we will take examples (60) to illustrate.

8.1. Homogeneous and quantized scales

Let us begin by showing how the notions of homogeneous and quantized are applied to scale structure. In order to understand the notion of part of a degree or subtraction of degrees, which is necessary to account for homogeneity and quantization, Husband (2010) adopts Kennedy’s (2011) definition of a degree, where degrees are understood as sets, (63). This definition enables the use of natural set-theory operations to define (a) what a part of a degree is and (b) the operations needed to define the part-structure of scales, (64).

(63) A degree $d$ is a convex nonempty subset of a scale $S$ such that

$$\forall p_1, p_2 \in d, \forall p_3 \in S, p_1 < p_3 < p_2 \rightarrow p_3 \in d$$

[Husband 2010: 165, (65)]

(64) For all degrees $d_1, d_2$ of a scale $S$,

a. Part of Degree: $d_2 \leq d_1 \Rightarrow d_1 U d_2 = d_1$

b. Proper Part of Degree: $d_1 < d_2 \Rightarrow d_1 \neq d_2 \& d_1 U d_2 = d_2$

c. Subtraction of Degrees: $d_1 - d_2 = d_1 / d_2$

[Husband 2010: 166, (66)]

Let us consider now how Husband applies these definitions to capture the difference between open and closed scales.

Open-scales (tall) are cumulative and divisive—remember the definitions in (13)—. For the scale of tall to be cumulative, any two degrees of tallness must union to be a degree of tallness. Assume that the examples in (65), where two individuals are presented, Anthony $a$ and Cleopatra $c$, are true. If this is the case, then, as Husband (2010: 166) claims “there is a degree and $d_a = \text{tall}(a)$ and a degree $d_c = \text{tall}(c)$, and $d_a > \text{stnd}(\text{tall})$ and and $d_c > \text{stnd}(\text{tall})$. Suppose that Anthony was taller than Cleopatra, such that $d_a > d_c$. Since $d_a U d_c = d_a$, and $d_a$ is the degree of Anthony, and (65) is true, then $d_a$ is a degree of tallness.” Open-scales are thus cumulative.

(65) a. Anthony is tall \[ \text{tall}(a) > \text{stnd}(\text{tall}) \]

b. Cleopatra is tall \[ \text{tall}(c) > \text{stnd}(\text{tall}) \]

[Husband 2010: 166, (67)]

The scale of tall will be divisive if any degree of tallness has a proper part which also is a degree of tallness and the subtraction of any two degrees of tallness in which one is a proper part of the other yields a degree which falls under tallness. Let us again quote Husband (2010: 166-167) to explain how divisiveness applies to (65):

55
Assume again that \([65]a\) is true; that is, \(d_a > \text{std}(\text{tall})\). Assuming that the scale of height is dense, then there is a degree \(d_b < d_a\) such that \(d_b\) is part of \(d_a\) and \(d_b > \text{std}(\text{tall})\) satisfying divisive’s first conjunct. Now, as a totally open scale, \(S_{\text{extent}} = (0, \infty)\). As subsets of \(S_{\text{height}}\), \(d_b = (0, p_b)\), \(d_b = (0, p_b)\), and \(p_b\) is less than \(p_a\). Then \(d_b - d_a = [p_b, p_a]\). Note of course that this interval contains values which are all heights that count as tall, satisfying divisive’s second conjunct. Having satisfied both conjuncts, open scales are divisive. Since open scales are both cumulative and divisive, they are homogeneous.

Closed scales, by contrast, are quantized. Consider the adjective \(\text{full}\). The scale structure of \(\text{full}\) is cumulative if the union of any two degrees of fullness is also a degree of fullness. The scale structure of \(\text{full}\) is divisive if any degree of fullness has a proper part which also is a degree of fullness and the subtraction of any two degrees of fullness in which one is a proper part of the other yields a degree which also falls under fullness. Let us once more quote Husband (2010: 167) in order to show that the scale of \(\text{full}\) is quantized (cumulative, non-divisive).

*Cumulative:* assume we have two individuals, the bottle \(b\) and the cup \(c\), such that the examples in \([66]\) are judged true.

\[
\begin{align*}
(66) & \quad \text{a. The bottle is full.} & \quad \text{full}(b) = \text{max}(\text{full}) \\
& \quad \text{b. The cup is full.} & \quad \text{full}(c) = \text{max}(\text{full})
\end{align*}
\]

Then there is a degree \(d_b = \text{full}(b)\) and a degree \(d_c = \text{full}(c)\), and \(d_b = \text{max}(\text{full})\) and \(d_c = \text{max}(\text{full})\). Note that since the scale of extent is (totally) closed, \(S_{\text{extent}} = [0,1]\), \(d_b = d_c = [0,1]\). Clearly then \(d_b \cup d_c = [0,1]\), which is the maximum degree, and closed scales are cumulative.

*Divisive:* Assume again that \([66a]\) is true; that is, \(d_b = \text{max}(\text{full})\) and \(d_c = \text{max}(\text{full})\). Since \(d_b = [0,1]\), i.e. the maximum degree of extent, then there cannot be a degree \(d_a\) such that \(d_a < d_b\) and \(d_a = \text{max}(\text{full})\), as any proper part of \(d_b\) will fail to include the maximum point on the scale. As such, closed scales fail to satisfying divisive’s first conjunct and are not divisive. Since closed scales are cumulative but not divisive, they are quantized.

8.2. The mapping to homogeneous and quantized states

It is time now to explain how the homomorphism from adjectival scale structure onto the aspectual/quantificational properties of the stative predication works.

According to Husband (2010: 171), the \(\text{pos}\) morpheme encodes this homomorphism between scale structure and eventualities (Kennedy & Levin 2008), (67). \(\text{Pos}\) merges with the adjective, and turns a measure function from individuals to degrees into a property of eventualities; it maps the part-structure of its argument to the part structure of the state (scale to event-structure mapping), (68).\(^{16}\)

\[
(67) \quad [\text{pos}] = \lambda g \in D_m \lambda e \exists x [g(x)(e) \geq \text{std}(g) \& \forall d'[d' \leq g(x)(e) \& d' \geq \text{std}(g) \rightarrow \exists e' [e' < e \& g(x)(e') = d']]]
\]

“For every subdegree which is still at or greater than the standard, the mapping to events proposes the existence of a substate such that the substate is a state of being equal to that degree.”

[Husband 2010: 171, (71)]

\[
(68) \quad \text{pos}, \langle \text{ee}, d \rangle, \langle \text{ss}, d \rangle \rightarrow \text{A}_{\langle \text{ee}, d \rangle} \quad \text{[Husband 2010: 172, (72)]}
\]

\(^{16}\) The type of \(\text{pos}\) is \(\langle \text{ee}, d \rangle, \langle \text{ss}, d \rangle\) (and not the usual type for \(\text{pos} \langle \text{ee}, d \rangle, \langle \text{ee}, t \rangle\)). Husband (2010) suggests that it could perhaps be argued that the denotation of adjectives is of type \(\langle \alpha, d \rangle\), where \(\alpha\) ranges over both individuals and states (Husband 2010: 171, footnote 14).
Consider now how this proposal works for *El niño es alto*. The pos, node maps a measure function into a property of events, introducing a mapping to events. As Husband claims, for every subdegree which is still at or greater than the standard, the mapping to events proposes the existence of a substate, such that it is a state of being equal to that degree. Since *alto* (‘tall’) is here an open-scale adjective, the homogeneous scale is mapped onto a homogeneous state.

In *El vaso está lleno*, pos, maps the measure function into a property of events with the addition of a mapping to events; since the scale in this case is quantized, the state itself is quantized.

(69) \[ \text{\text{pos, alto}} = \lambda s \exists x [\text{alto}(x)(s) \geq \text{stnd(alto)} \& \forall d'[d' \leq \text{alto}(x)(s) \& d' \geq \text{stnd(alto)} \rightarrow \exists s' [s' < s \& \text{alto}(x)(s') = d']] \]

(70) \[ \text{\text{pos, lleno}} = \lambda s \exists x [\text{lleno}(x)(s) \geq \text{stnd(lleno)} \& \forall d'[d' \leq \text{lleno}(x)(s) \& d' \geq \text{stnd(lleno)} \rightarrow \exists s' [s' < s \& \text{lleno}(x)(s') = d']] \]

[Adapted from Husband 2010: 173 (73)]

At this point of the derivation we claim that the copula is merged. As was stated above, we take the copula to be the essentially meaningless copula of predication.

(71) a. \[ \text{\text{copula}} = \lambda P_{(s,t)} \lambda s. P(s) \]

b. \[ \begin{array}{c}
\text{V copula} \\
\text{pos, <<e,d>, <s,t>>} \\
A_{<e,d>}
\end{array} \]

8.3. The interpretation of the subject in copular structures

The stative Voice head, whose denotation, following Husband (2010: 173), appears in (72). This node introduces the external argument and also maps the part-structure of the state onto the part structure of the individual. The composition of the VoiceP is thus (73).17

(72) \[ \text{\text{Voice}} = \lambda x \lambda s [\text{Holder}(x)(s) \& \forall s' [s' \leq s \rightarrow \exists x'[x' \leq x \& \text{Holder}(x')(s')]] \]

(73) \[ \begin{array}{c}
\text{DP} \\
\text{Voice} \\
\text{V copula} \\
\text{pos, <<e,d>, <s,t>>} \\
A_{<e,d>}
\end{array} \]

Therefore, the whole derivation for the examples *Un niño es alto* (‘A boy is tall’) and *Un vaso está lleno* (‘A glass is full’) is shown in (74). The scale-structure of the adjective ultimately determines the aspectual properties of ser/estar copular structures:

17 DP and Voice are combined via Event Identification (and not via Functional Application) (see Husband 2010: 124). We leave aside the details of this process here.
These examples deserve further investigation. What is crucial for the purposes of this paper, as shown in (77), is that the diacritic of the adjective in (i) is relative when the verb is *está* but保住 absolute when it is *ser*.

Second, predications with eventive subjects are only possible with *ser*, as shown in (76)-(77). In (76), the adjectives *cansado* (‘tired’), *grave* (‘seriously ill’), combine with non-eventive subjects and the copula is *estar*. By contrast, the examples in (77) show that when the subject is eventive, the verb must be *ser* in all cases.\(^\text{(76a)}\)

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\(^{18}\) (76a) is well formed using *ser* when the subject *Juan* gets an eventive interpretation (*Juan’s attitude is tiring*). It must be noted, as pointed out by an anonymous reviewer, that examples like (i) are possible. In (i), the subject is eventive but *estar* is possible. However, it seems that only a restricted set of adjectives can appear in such kinds of examples: *divertido* (‘fun’ ‘entertaining’), *aburrido* (lit. ‘bored’ ‘boring’), *interesante* (‘interesting’). By contrast, adjectives like *alegre* or *cruel* (‘happy’, ‘cruel’) give rise to ungrammatical examples:

(i) *La boda / el cumpleaños / la fiesta / la reunión* {fue / estuvo} {divertida / aburrida / interesante}.

(ii) *The wedding / birthday / party / meeting* was\(_{ser/estar}\) {fun / boring / interesting}.

These examples deserve further investigation. What is crucial for the purposes of this paper, as the examples in (iii) and (iv) show, is that the interpretation of the adjective in (i) is relative when the verb is *ser* and absolute when it is *estar*.
ASPECTUAL COMPOSITION IN <SER/ESTAR + ADJECTIVE> STRUCTURES

(76) a. Juan {es / está} cansado.
   ‘Juan is SER/ESTAR tired.’

   b. Su marido {es / está} grave.
   ‘His husband is SER/ESTAR seriously ill.’

(77) a. Trabajar en una mina {es / *está} cansado.
   ‘Working in a mine is SER/ESTAR tiring.’

   b. Su enfermedad {es / *está} grave.
   ‘His illness is SER/ESTAR severe.’

These contrasts seem to be parallel to those in (78), with PP arguments (see Brucart 2009 about these kinds of examples). In sentences with ser the subject class and conference are interpreted as events; with estar, they are interpreted as locations, hence the ungrammaticality of La conferencia está en el aula 12, since conferencia cannot be interpreted as a physical place.

(78) a. La clase {es / está} en el aula 12.
   the class is SER/ESTAR in the room 12
   ‘The class is in room 12.’

   b. La conferencia {es / *está} en el aula 12.
   the conference is SER/ESTAR in the room 12
   ‘The conference is in room 12.’

Note that, in examples like (77), the adjective is interpreted as relative, as shown by the entailments in (79).

(79) En verano, nadar es más cansado que tomar el sol --/--> in summer, swim is more tired than take the sun
{nadar / tomar el sol} (no) es cansado.
{swim / take the sun} (not) is tired
‘In summertime, swimming is more tiring than sunbathing’ --/--> ‘Swimming / Sunbathing is (not) tiring’.

Therefore, adjectives like cansado (‘tired’) are interpreted as relative in this context, where they combine with ser. It remains to be determined why eventive subjects can only appear in copular sentences headed by ser, hence co-occurring with relative adjectives (remember the exceptions stated in footnote 18).

Moreover, nothing has been said in this paper with respect to the extension (or possible modification) of the proposal presented here to cases where the complement of the copulas are DPs, PPs or adverbs; or to other non-copulative uses of ser/estar (for example as auxiliaries in the passive voice or progressive tense). This is definitely an aspect that should be explored.

(80) a. María {es / *está} monja; María {es / está} muy monja.
   María is SER/ESTAR nun; María is SER/ESTAR very nun
   ‘María is a nun (relational adjective)’; ‘María really behaves like a nun.’

   b. María es {de Madrid / *sin dinero}.
   María is SER {from Madrid / *without money}
‘María is from Madrid’; ‘María is broke.’

b’. María está {*de Madrid / sin dinero}.

María is_{ESTAR} {*from Madrid / broke}

c. Esto es así; Esto está bien.

‘This is_{SER} so’; ‘This is_{ESTAR} OK.’

Though many aspects remain open, we hope that this new approach to the distribution of adjectives with the two Spanish copulas _ser/_estar_ opens a new line of research in this area of the lexicon-syntax-semantics interface.

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