The acquisition of alternation in a second language

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DECLARATION

I certify that the work contained in this thesis, or any part of it, has not been accepted in substance for any previous degree awarded to me, and is not concurrently being submitted for any degree other than that of Doctor of Philosophy being studied at the University of Greenwich. I also declare that this work is the result of my own investigations, except where otherwise identified by references and that the contents are not the outcome of any form of research misconduct.

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ABSTRACT

Keywords: second language acquisition, copular verbs, *ser, estar,* Spanish, alternation, syntax, semantics, syntax-pragmatics interface, optionality, native-likeness.

This study examines the acquisition of alternation in a second language (L2) by focusing on the acquisition of the copular verbs in Spanish, *ser* and *estar*, by native speakers of English, who have only one copula, *be*, in their first language (L1). Specifically, this thesis focuses on the acquisition of copular cases with adjectival predicates, which can be classified into three groups: adjectives that combine only with *ser* (e.g. *famoso* 'famous'), adjectives combining only with *estar* (e.g. *contento* 'happy') and adjectives that are compatible with both but where only one copula is felicitous according to the context (e.g. *nervioso* 'nervous') (i.e. dual adjectives).

Two hypotheses were entertained, one dubbed as Syntactic Complexity, according to which the simpler an element is the earlier and better its acquisition is expected to be in an L2, and the Interface Hypothesis (Sorace, 1993; Sorace and Keller, 2005; Sorace, 2005; Tsimpli and Sorace, 2006; Sorace and Serratrice, 2009; Sorace, 2011, among others), according to which elements whose value depend on an interface (such as the syntax-discourse interface) are expected to be more vulnerable to acquisition. The first hypothesis predicts that *ser*, by virtue of its simpler syntactic structure (Arche, Fábregas and Marín, to appear), is acquired first and better. The second one predicts difficulties in the acquisition of cases where the two copulas are a possibility (i.e. dual adjectives) but only one copular verb is appropriate according to the context. To assess these two hypotheses a cross-sectional elicitation study was carried out, which elicited the copular alternation of *ser* and *estar* with djectival predicates through four, focused oral

production and written comprehension tasks. The task design was especially tailored to each adjectival group. Those adjectives that have a fixed syntactic distribution were elicited separately to dual adjectives since only the latter depend on the discursive information for their copular selection. Tasks elicited copular sentences in 108 tokens, of which 36 included 6 only-*ser* adjectives (e.g. *famoso* 'famous') and 6 only-*estar* adjectives (e.g. *contento* 'happy') and 72 tokens that contained 18 dual adjectives in contrasting discursive contexts, specifically 6 dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), 6 dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') and 6 dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). Seventy-one English-speaking learners of Spanish and twenty-five native Peninsular Spanish speakers participated.

Results show that L2 acquisition is determined not only by the syntactic properties of the copulas themselves but also by the syntactic properties of the adjectival predicates. Learners were not more accurate with adjectives that have a fixed syntactic distribution than with those that are context-dependent. By contrast, advanced learners attained a native-like level with those adjectives that are grammatically possible in constructions where the property of stage-levelness (associated to *estar*) is not brought in only by the copula *estar*, but in other syntactic enviroments such as absolute constructions and subject predicative complements. That is, with only-*estar* adjectives such as *contento* 'happy' and dual self-standing stage adjectives such as *nervioso* 'nervous'. In turn, they failed to achieve a target-like alternation when the copulas appear with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') and those of disposition (e.g. *amable* 'kind'). Furthermore, results indicate that even learners at higher levels of proficiency have not fully acquired *ser*, leading them to misuse this copula in constructions where the copula expected was *estar*. This contradicts much previous research (Geeslin, 2000; Geeslin, 2003; Geeslin, 2005; Geeslin and Guijarro Fuentes, 2006; Woolsey, 2008; Cheng, Lu and Giannakouros, 2008; VanPatten, 2010; Collentine and Asención Delaney, 2010; among others) that states that '*ser* seems to take care of itself' (VanPatten 2010, p.33) and that it is easily acquirable.

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Chapter 1

Presentation of the study

This work accounts for the acquisition of alternation in a second language (L2). That is, the acquisition of different elements that occur within identical syntactic constructions but conveying a difference in meaning. This issue was addressed by examining the acquisition of the Spanish copular verbs *ser* and *estar,* both corresponding to only one in English, *be*. To illustrate, while in English we see the same form (*is*) in *Pedro is famous* and *Pedro is happy*, in Spanish there are two different forms, *ser* in *Pedro es famoso* 'Pedro is_SER famous' and *estar* in *Pedro está contento* 'Pedro is_ESTAR happy'. The two copulas are not interchangeable with these adjectival predicates, and the selection of one copula over the other leads to ungrammatical results. By contrast, in other adjectival predicates, both copulas are allowed as in *Ana es nerviosa* 'Ana is_SER nervous' and *Ana está nerviosa* 'Ana is_ESTAR nervous' (i.e. dual adjectives). In these cases, the copular selection relies on the discursive information. Thus, the selection of *ser* is appropriate for contexts that ascribe a property to the individual in and of itself (e.g. Ana is a nervous type of person) and *estar* for contexts that depict a property that holds true of the individual in a particular circumstance (Arche, 2006) (e.g. Ana is nervous because she has a job interview). Conversely, selecting *ser* for contexts that link a property to a particular circumstance (where *estar* is expected) or vice versa, *estar* for contexts where a property is ascribed to the individual as such (where *ser* is required) produces a discursively infelicitous combination.

Two hypotheses were tested; on the one hand, the Syntactic Complexity Hypothesis conjectures that if L2 acquisition is governed by the complexity of the syntactic configuration of the elements in question, then *ser* is more likely to be early and

eventually fully acquired. Therefore, assuming the lexico-syntactic characterization of *ser* and *estar* developed by Arche, Fábregas and Marín (to appear), L2 learners will master *ser* with only-*ser* adjectives (e.g. *famoso* 'famous') as well as with dual adjectives (e.g. *nervioso* 'nervous') that appear in contexts that apply properties to the individual as such. Conversely, learners are expected to exhibit variability with *estar* in all copular combinations (i.e. *estar* with only-*estar* adjectives such as *contento* 'happy' and with dual adjectives such as *nervioso* 'nervous') as this copula has an additional element of a prepositional nature that *ser* lacks. On the other hand, the Interface Hypothesis (Sorace, 1993; Sorace and Keller, 2005; Sorace, 2005; Tsimpli and Sorace, 2006; Sorace and Serratrice, 2009; Sorace, 2011, among others) predicts that learners will achieve a native-like level with linguistic phenomena that depend solely on the syntax (i.e. *ser* with only-*ser* adjectives such as *famoso* 'famous' and *estar* with only-*estar* adjectives such as *contento* 'happy'), while they are likely to fail a target-performance with linguistic phenomena that integrate information from different modules of the grammar, such as the syntax-discourse interface. Therefore, learners will evince difficulties in the acquisition of the copular alternation with dual adjectives (e.g. *nervioso* 'nervous') since they must assess whether the syntactic properties of each copula are appropriate with respect to the discursive context.

This cross-sectional elicitation study tested the copular alternation with adjectival predicates through four, focused oral production and written comprehension tasks that were specifically designed for each adjectival group. Adjectives that have a fixed distribution (i.e. only-*ser* adjectives and only-*estar* adjectives) were assessed separately to dual adjectives since only the latter base their copula selection on the contextual information. Tasks elicited copular clauses in 108 tokens, of which 36 included 12 adjectives that have a fixed distribution, and 72 tokens that contained 18 dual adjectives that were presented in the two possible discursive contexts. Seventy-one English-speaking L2 learners of Spanish and twenty-five native Peninsular Spanish speakers participated.

Results lead us to reach two novel conclusions, unexpected from previous wisdom. Firstly, results indicate that learners even at higher levels of proficiency have not fully

acquired the syntactic and semantic properties of *ser* since although their rates of acceptance and production were close to the native ones in grammatical and appropriate contexts, their level of rejection of *ser* in ungrammatical and inappropriate discursive contexts was significantly low. In addition, this divergent mental representation of the copulas that advanced L2 learners possessed, may explain the learners' misuse of *ser* in constructions where the copula expected was *estar*. The second conclusion is that L2 acquisition is determined not only by the syntactic properties of the copulas themselves but also by the syntax of the adjectives themselves. Learners were not more accurate with those adjectives that have an obligatory syntactic distribution (i.e. only-*ser* adjectives and only-*estar* adjectives) than with those that are context-dependent (i.e. dual adjectives), as the Interface Hypothesis predicts. By contrast, advanced learners attained a native-like level with those adjectives (i.e. only-*estar* adjectives such as *contento* 'happy' and dual self-standing stage adjectives such as *nervioso* 'nervous') that are grammatically possible in other constructions, such as absolute constructions and subject predicative complements. Instead, they failed to achieve a target-performance when the copulas alternate with dual adjectives that depend solely on *estar* to bring about a stage interpretation (i.e. dual dependent-stage adjectives of physical appearance such as *viejo* 'old' and dual dependent-stage adjectives of disposition such as *amable* 'kind'). I argue that this can be accounted for because these adjectives have a more restrictive syntactic distribution (Marín, 2000; 2004 & 2010) (i.e. they yield ungrammatical results in absolute constructions and predicative complements of the suject) and refer to a stage only in combination with *estar*.

This thesis is organized as follows: Chapter Two presents a thorough characterization of the syntactic distribution of the Spanish copulas and a detailed classification of only-*ser* adjectives, only-*estar* adjectives and dual adjectives that was employed in the task design; Chapter Three introduces the research questions that motivated this study and the two hypotheses that were tested, namely the Syntactic Complexity Hypothesis and the Interface Hypothesis; Chapter Four presents the pilot study and the final experimental study and offers a statistical analysis of the results; and finally, Chapter Five offers a discussion of the results, the implications, the limitations of this study and future avenues of research.

Chapter 2

The distribution of the Spanish copulas *ser* and *estar*

As mentioned in the introduction, Spanish has two copular verbs, namely *ser* and *estar,* which are equivalent to only one form in English, the copula *be*. Spanish has these two copulas to convey what English does with only one form. Although some authors (e.g. den Dikken, 2006; Roy, 2013; Gumiel Molina, Moreno Quibén and Pérez Jiménez, 2015, among others) have argued that copulas are devoid of semantic content (i.e. copular verbs have been considered mere linking verbs between the subject and the predicate), Spanish copulas *ser* and *estar* are not synonymous and cannot be used interchangeably, which suggests that they are not completely void of meaning.

This chapter is organized as follows. In section 2.1, I provide a description of the syntactic distribution of the Spanish copulas *ser* and *estar* in Modern Peninsular Spanish. I concentrate on the adjectival distribution since, unlike other predicate types (e.g. noun phrases and locative prepositional phrases), adjectives exhibit a copular distribution that is more complex. Some only go with *ser,* others only with *estar* and a third group is compatible with both. In sections 2.2 I outline the syntactic positions that adjectives can occupy outside copular clauses (i.e. in prenominal and postnominal attribution or as predicative complements or absolute clauses) and the readings they give rise to. As not all adjectives are allowed as copular complements, Section 2.3 is devoted to distinguishing which adjectives can appear as copular complements and which cannot. In Sections 2.4, 2.5 and 2.6 I elaborate on the characteristics and syntactic tests to recognise only-*ser* adjectives (e.g. *famoso* 'famous'), only-*estar*

adjectives (e.g. *contento* 'happy') and dual adjectives. The latter are in turn subdivided into three groups (Marín, 2010): dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous').

Throughout this work, following the tradition (Fernández Leborans, 1999; Escandell Vidal and Leonetti, 2002; Arche, 2006; Marín, 2010; Fábregas, 2012; among others), I consider *ser* and *estar* as the lexical exponents of the Individual-Level (IL) and Stage-Level distinction (SL) (Carlson, 1977). In Section 2.7 I present the syntactic tests used to identify IL predicates and SL predicates in English.

Section 2.8 I critically review the most influential accounts on *ser* and *estar* (Luján, 1980; Clements, 1988; 2006; Fernández Leborans, 1995a; 2007; Schmitt, 1992; 2005; Maienborn, 2005, among others)*,* arguing that the difference is not aspectual or discourse-based. This line of reasoning leads me to assume Arche, Fábregas and Marín's (to appear) syntactic characterization of the Spanish copulas, whereby *ser* is syntactically less complex than *estar* because it only consists of a copular element, whereas *estar* is formed by a copular element and an additional head of a prepositional nature. Section 2.9 summarises the chapter.

2.1 Distribution of *ser* and *estar*

As a first approach to illustrate the syntactic distribution of *ser* and *estar*, I will describe the types of predicates that are compatible with each copula. I begin by the predicates that appear in complementary distribution, that is, when *ser* is grammatical, *estar* is ungrammatical and vice versa. For instance, *ser* combines invariably with noun phrases as in (1), whereas *estar* appears with locative prepositional phrases, provided that the subject is non-eventive[1] as in (2).

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[1] The copular distribution relates to the eventive properties of the subject. Non-eventive subjects (i.e. animate subjects (1), inanimate subjects (2) and fixed entities (3)) combine with *estar,* while eventive

(1) *María* <u>**es**</u>/*está *lingüista.*
María **be**_{SER/ESTAR-PRESENT- 3SG} linguist.
'María is a linguist.'

(2) *María *es/<u>**está**</u> *en Greenwich.*
María **be**_{SER/ESTAR-PRESENT- 3SG} in Greenwich.
'María is in Greenwich.'

Unlike noun and locative prepositional phrases, which appear with one copula only, the copular distribution with adjectives is more complex since they can appear with both. As shown before, certain adjectives only combine with *ser* (3)*, others only go with *estar* (4) and a third group, the largest of all three, is compatible with both (compare (5) and (6)).

Adjectival phrases

(3) *Daniel* <u>*es*</u>/**está* **famoso***.*
Daniel **be**_{SER/ESTAR-PRESENT- 3SG} **famous**.
'Daniel is famous.'

(4) *Daniel **es/<u>**está** **contento***</u>.*
Daniel **be**_{SER/ESTAR-PRESENT- 3SG} **happy**.
'Daniel is happy.'

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subjects (both deverbal event nouns such as *el debate* 'the debate' (4) and non-deverbal event nouns such as *la conferencia* 'the conference' (5)) appear with *ser* (see Fernández Leborans, 1999; Romero, 2009).

(1) *María *es/<u>**está**</u> *en Greenwich.*
María **be**_{SER/ESTAR-PRESENT- 3SG} in Greenwich.
'María is in Greenwich.'
(2) *El autobús *es/<u>**está**</u> *en Greenwich.*
The bus **be**_{SER/ESTAR-PRESENT- 3SG} in Greenwich.
'The bus is in Greenwich.'
(3) *La universidad *es/<u>**está**</u> *en Greenwich.*
The university **be**_{SER/ESTAR-PRESENT- 3SG} in Greenwich.
'The university is in Greenwich.'
(4) *El debate* <u>*es*</u>/**está en Greenwich.*
The debate **be**_{SER/ESTAR-PRES-3SG} in Greenwich.
'The debate is in Greenwich.'
(5) *La conferencia* <u>*es*</u>/**está en Greenwich.*
The conference **be**_{SER/ESTAR-PRES-3SG} in Greenwich.
'The conference is in Greenwich.'

(5) *Pedro* **es** *nervioso.*
Pedro **be**_{SER-PRESENT- 3SG} **nervous**.
'Pedro is nervous (person).'

(6) *Pedro* **está** *nervioso.*
Pedro **be**_{ESTAR-PRESENT- 3SG} **nervous**.
'Pedro is nervous (today).'

As the Spanish copulas are not synonyms, the negation of a dual adjective with one copula does not entail the negation of the same adjective with the other copula. Hence, (7) and (8) do not constitute a contradiction. Note that in (7) Pedro is usually unable to be at ease (e.g. he is a nervous type of person), although for some reason he is calm now (e.g. he is reading a book). Instead, in (8) the opposite is stated. David seems anxious at this moment (e.g. he is nervous prior to an exam), but this is not a characteristic that he possesses as an individual.

(7) *Pedro* **es** *nervioso, pero (ahora) no* **está** *nervioso.*
Pedro **be**_{SER-PRESENT- 3SG} **nervous**, but (now) not **be**_{ESTAR-PRESENT- 3SG} **nervous**.
'Pedro is nervous (person), but he is not nervous (now).'

(8) *Pedro* **está** *nervioso (ahora), pero no* **es** *nervioso.*
Pedro **be**_{ESTAR-PRESENT- 3SG} **nervous** (now), but not **be**_{SER-PRESENT- 3SG} **nervous**.
'Pedro is nervous (now), but he is not nervous (person).'

Even in the case of adjectives that denote physical traits (e.g. *viejo* 'old'), the copular alternation is grammatically allowed. In (9), the characteristic of being old is predicated of David according to his age (i.e. David is ninety years old), therefore he can be classified as an elderly person. Instead, in (10) *estar* refers to a circumstance and consequently, we obtain several interpretations.

(9) *David* **es** *viejo.*
David **be**_{SER-PRESENT- 3SG} **old**.
'David is old.'

(10) *David* **está** *viejo.*
David **be**_{ESTAR-PRESENT- 3SG} **old**.
'David is (looks) older.'

Note that, with *estar,* the speaker is examining David's actual physique or mental ability with respect to that expected for his age. Accordingly, *estar* gives rise to three main interpretations:

i.   David looks physically older in relation to his chronological age. For example, he is fifty years old but physically looks older.

ii. David has aged and his mental or physical abilities are now those typically associated with elderly people.

iii. David has become old-fashioned.

As it occurred earlier with *nervioso* 'nervous', the negation of one copula does not entail the negation of the other. In (11) the old age is predicated of the individual, but the same property is denied on this occasion. For one reason or another, David does not look old or behave as a typical elderly person. By contrast, in (12) it is asserted that David looks older than his age or follows a lifestyle typically associated with an elderly person; however, according to his age he could not be classified as such (e.g. he is thirty years old).

(11) *David **es** **viejo**, pero no **está viejo**.*
David **be**_{SER-PRESENT- 3SG} **old**, but not **be**_{ESTAR-PRESENT- 3SG} **old**.
'David is old, but he is not old.'

(12) *David **está** **viejo**, pero no **es viejo**.*
David **be**_{ESTAR-PRESENT- 3SG} **old**, but not **be**_{SER-PRESENT- 3SG} **old**.
'David is old, but he is not old.'

The above examples argue against the partial synonymy proposed by Luján (1980, p. 38; 1981, p. 172), who contends that predicates with *ser* entail predicates with *estar*, but not vice versa. She claims a hyponym relation by which *estar* is a type of *ser*. Therefore, clauses with *estar* imply clauses with *ser*, but not the other way around. However, following Arche (2006), I sustain that there is no entailment between *ser* and *estar*. The speaker uses *ser* to predicate a property that the subject possesses. In turn,

when his/her intention is to predicate a property that the individual holds in a particular circumstance, the copula required is *estar*. Therefore, a property can be predicated of an individual with *estar* without implying that s/he possesses such a property with *ser*.

As we have seen in this section, adjectival predicates involve a more complex distribution than other predicate types (e.g. noun phrases and locative prepositional phrases), as some can appear only with *ser*, others only with *estar* and some others with both. It is therefore crucial to investigate which syntactic positions adjectives can occupy, and which type of readings they yield. Can adjectives in other syntactic environments give rise to a reading where the property is attributed to the individual as such (along the lines of *ser*)? Can adjectives in other syntactic constructions link the property in relation to a specific circumstance (as *estar* does)?

2.2 Adjectives outside copular clauses

Adjectives in Spanish occur in two syntactic positions: in an attributive position, as shown in (13), inside the determiner phrase, or in a predicative position, that is, following a verb. If the verb is a copula, I refer to the predicate as a copular complement (15). In the case of lexical verbs (i.e. verbs that carry encyclopedic meaning such as *ver* 'to see') we distinguish between predicative complements (16)–(18) and small clause complements (19)–(20).

      Adjectival attribution

(13) *Un hombre **tranquilo***   *postnominal attribution*
     A man **calm**
     'A calm man'

(14) *Un **tranquilo** hombre*   *prenominal attribution*
     A **calm** man.
     'A calm man'

Adjectival predication

(15) *David __es/está__ **tranquilo**.* 　　　　　　　　　*copular complement*
David **be**_{SER/ESTAR-PRESENT- 3SG} **calm**.
'David is calm.'

(16) *David __vive__ **tranquilo**.* 　　　　　　　　*subject predicative complement*
David **live**_{PRESENT-3SG} **calm**.
'David lives tranquil(ly).'

(17) *__Veo__ a Carmen_i muy **tranquila**_i* 　　　　*object predicative complement*
I-see_{PRESENT-3SG} Carmen very **calm**.
'Carmen looks very calm to me.'

(18) *__Noto__ a Carmen muy **tranquila**.* 　　　　　*object predicative complement*
Carmen **notice**_{PRESENT-3SG} very **calm**.
'Carmen looks very calm to me.'

(19) *Ana __parece__ **amable**.* 　　　　　　　　　*small clause complement*
Ana **seem**_{PRESENT-3SG} **kind**.
'Ana seems kind.'

(20) *__Considero__ **amable**_i a Ana_i.* 　　　　　　*small clause complement*
I-consider_{PRESENT-3SG} **kind** to Ana.
'I consider Ana (to be) very kind.'

Note that while copular complements only make reference to the subject (15), predicative complements and small clause complements modify simultaneously the verb and the subject (e.g. *David* (16) and *Ana* (19)) or the verb and the direct object (e.g. *Carmen* (17)–(18) or *Ana* (20))[2]. For instance, the predicative complement *tranquilo* 'calm' makes reference to a state of the subject David in relation with the event of *vivir* 'to live' in (16), whereas in (17)–(18) it refers to the event of 'seeing' or 'noticing' and

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[2] As noted by Demonte and Masullo (1999, p.2466), predicative complements and small clauses are unable to modify determiner phrases that work as indirect objects and locative prepositional phrases (see examples taken from Demonte and Masullo (idem) (1) and (2)).

(1) 　**Le regalé un reloj [a Mario]_i **entusiasmado**_i.* 　　　　　　*indirect object*
　　Him give_{PRET-1SG} a watch [to Mario] **excited**.
　　'I gave him as a present a watch excited.'
(2) 　**Puse el libro [en la mesa]_i **rota**_i.* 　　　　　　*locative prepositional phrase*
　　Put_{PRET-1SG} the book [on the table] **broken**.
　　'I put the book on the table broken'

the direct object Carmen. For this reason, predicative complements are also referred to in the literature as *adjunct secondary predicates* since they provide a depictive predication (i.e. the main verb works as the first predication). Furthermore, predicative complements (see Hernanz Carbó, 1988; Demonte and Masullo, 1999 for Spanish) (16) and (17) differ from small clause complements (19) and (20) in that their absence does not alter the grammaticality of the sentence, whereas small clause complements are obligatory (Stowell, 1981).

The distribution of adjectives as small clause complements is relevant for our purposes since they predicate the property of the individual as such (as *ser* does), whereas predicative complements (Marín, 2000; 2004; 2010), as will be shown in greater detail below, align with *estar* because they also denote the property in relation to a circumstance that you have perceived. Consequently, only those adjectives that combine exclusively with *estar* (e.g. *contento* 'happy') or dual adjectives (e.g. *tranquilo* 'calm') can be part of object predicative complements. Note that only-*ser* adjectives (e.g. *famosa* 'famous' or *bilingüe* 'bilingual') do not give well-formed sentences in general (see (21)–(22):

(21) **<u>Veo</u> a Carmen_i muy famosa_{i.}*
    I-see_{PRESENT-3SG} Carmen **very famous**.
    'Carmen looks very famous to me.'

(22) **<u>Noto</u> a Carmen_i muy bilingüe_{i.}*
    I-notice_{PRESENT-3SG} Carmen **very bilingual**.
    'Carmen looks very bilingual to me.'

In the next section I start by discussing the syntactic properties of adjectives in order to understand which adjectives can be part of copular clauses and which ones cannot. My aim is to provide a detailed adjectival classification which can capture their key properties, to be used as the basis for the empirical study. The examination of the properties of adjectives is built upon previous adjectival classifications proposed by Luján (1980; 1981), Fernández Leborans (1999), Marín (2010) and Gumiel Molina and Pérez Jiménez (2012). As I will detail later on, this adjectival classification is different

from those used in previous studies on the L2 acquisition of the Spanish copulas. As I will demonstrate, so as to understand the acquisition of the copulas with adjectival predicates is crucial to rely on a classification of adjectives based on independent syntactic tests, rather than a semantic classification whereby adjectives are divided into size, age, physical appearance, evaluation, sensory characteristic, colour, personality, mental state, physical state or status, as found in Ramírez Gelpi (1995), Geeslin (1999; 2003; 2005; 2014), Cheng (2002; 2004), Geeslin and Guijarro Fuentes (2006), Woolsey (2008), Cheng *et al.* (2008), Dorado (2010) and Long (2016), among others. Neither do I divide adjectives into two classes: *ser* characteristic and *estar* condition, as found in VanPatten (1985; 1987), Ryan and Lafford (1992), Guntermann (1992), Sera (1992), Briscoe (1995) and Francis (2007) since this dual division takes for granted that *ser* ascribes permanent properties to the subject while *estar* predicates episodic properties or properties that are the result of a change. To the best of my knowledge, no study to date takes the syntactic properties of adjectives into account. By doing this, I will be able to tackle actual acquisition, since the copular distribution could be seen as a consequence of a certain state of speakers' mental grammar, built in accordance with the syntactic and semantic properties of the copulas and the adjectives.

2.3 Which adjectives can appear as copular complements and which ones cannot

The aim of this section is to show that not all adjectives are allowed after a copular verb and this will enable us to establish the set of adjectives relevant for the experimental study. Qualifying adjectives, that is, those that denote a quality or a property of the noun they modify (Bosque, 1993) (e.g. *viejo* 'old', *amable 'kind'* and *tranquilo* 'calm'), can occupy both an attributive position, as seen as in (23)–(24), and a predicative position: both as a copular complement, as in (25) and as a small clause complement, as in (26). In contrast, those adjectives traditionally known as relational adjectives, that is to say, those that bind the noun with respect to a domain, are felicitous attributively but rarely

appear as predicates (Siegel, 1976; Bache[3], 1978; Baker, 2003 for English, and Bosque, 1993; Demonte, 1999; Rainer, 1999; Fábregas, 2007 for Spanish).

Qualifying adjectives

(23) *El hombre **viejo/amable/tranquilo**.*   *postnominal attribution*
The man **old/kind/calm**.
'The old/kind/calm man'.

(24) *El **viejo/amable/tranquilo** hombre.*   *prenominal attribution*
The **old/kind/calm** man.
'The old/kind/calm man'.

(25) *El hombre **es/está viejo/amable/tranquilo**.*   *copular complement*
The man **be**_SER/ESTAR-PRESENT-3SG **old/kind/calm**.
'The man is old/kind/calm'.

(26) *El hombre **parece viejo/amable/tranquilo**.*   *small clause complement*
The man seem_PRESENT-3SG **old/kind/calm**.
'The man seems old/kind/calm'.

To illustrate the restrictive syntactic distribution of relational adjectives, note that *honorario* 'honorary' (another example that patterns alike is *portuaria[4]* 'of port') is

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[3] In his adjectival classification, Bache (1978) identifies three types of adjectives (1) (example taken from Bache, 1978, p.27): defining adjectives such as *whole*, characterizing adjectives such as *unresolvable* and classifying adjectives such as *Australian*. Throughout this work, classifying adjectives will be referred to as relational adjectives (Bosque, 1993; Bosque and Picallo, 1996; Demonte, 1999; Fábregas, 2007).
  1. *The whole sickening, unresolvable Australian mess.*

[4] Here I provide another example of the restrictive distribution of the relational adjectives *portuaria* (literally, 'of port').
  (1) *La autoridad **portuaria**.*
       The authority **port**.
       'The port authority'.

  (2) **La **portuaria** autoridad.*
       The **port** authority.
       'The port authority'

  (3) **La autoridad **es/está portuaria**.*
       The authority **be**_SER/ESTAR-PRESENT-3SG **port**.
       'The authority is port.'

  (4) **La autoridad **parece portuaria**.*
       The authority **seem**_PRESENT-3SG **port**.
       'The authority seems port.'

exclusively grammatical in an attributive postnominal position (27). In other words, they can neither modify the noun in a prenominal position (28) nor function as copular complements (29) or as small clause complements of the raising verb *parecer* 'to seem' (30).

Relational adjectives

(27) *El miembro **honorario**.*   *postnominal attribution*
   The member **honorary**.
   'The honorary member'.

(28) **El **honorario** miembro.*   *prenominal attribution*
   The **honorary** member.
   'The honorary member'.

(29) **El miembro **es/está** **honorario**.*   *copular complement*
   The member **be**SER/ESTAR-PRESENT-3SG **honorary**.
   'The member is honorary.'

(30) **El miembro **parece** **honorario**.*   *small clause complement*
   The member **seem**PRESENT-3SG **honorary**.
   'The member seems honorary.'

As Bosque and Picallo (1996, p.351) argue, the restrictive syntactic distribution of relational adjectives is due to the fact that they are mainly derived from nouns and thus 'denote entities' as nouns do. In particular, Fábregas (2007, p.14) proposes that relational adjectives are an example of a transposition. That is, relational adjectives represent a mismatch between their morphology as an adjective (as they carry an adjectival suffix) and their formal properties (typical of nouns), which invalidates them as predicates (since they exhibit the internal structure of nouns). Relational adjectives exhibit the same syntactic distribution as endocentric compounds. Endocentric compounds are those formed by a head and a modifier that are both nouns, such as *el hombre anuncio* 'the sandwich-board man' (31). Relational adjectives (e.g. *honorario* 'honorary') and endocentric compounds pattern alike concerning their ungrammaticality in prenominal attribution (32) and also as copular complements (33) and small clause complements (34). However, endocentric compounds differ from relational adjectives in that when modifying nouns they do not exhibit internal agreement of gender and number. Observe that, if in (31) the head noun *el hombre* 'the man' is replaced by *la*

mujer 'the woman', the modifying noun *anuncio* 'advertisement' does not morphologically change its gender (i.e. *la mujer anuncio* 'the advertisement woman' being ungrammatical to say **la mujer anuncia* 'the advertisement woman'). Similarly, the modifying noun *anuncio* 'advertisement' does not need to agree morphologically in number with the head noun (e.g. *los hombres anuncio* 'the sandwich-board men' is plural whereas the modifying noun *anuncio* 'advertisement' is singular).

Endocentric compounds

(31) *El hombre **anuncio**.*   *postnominal attribution*
The man **advertisement**.
'The sandwich-board man'.

(32) **El **anuncio** hombre.*   *prenominal attribution*
The **advertisement** man.
'The sandwich-board man'

(33) **El hombre **es/está** **anuncio**.*   *copular complement*
The man **be**_{SER/ESTAR-PRESENT-3SG} **advertisement**.
'The man is sandwich-board.'

(34) **El hombre **parece** **anuncio**.*   *small clause complement*
The man **seem**_{PRESENT-3SG} **advertisement**.
'The man seems sandwich-board.'

Before proceeding further let us note that relational adjectives do not constitute a homogeneous group. Following Bosque (1993), relational adjectives are further subdivided into two subclasses: *thematic relational adjectives* and *classificatory relational adjectives*. Each subclass establishes a different lexical relation with the head noun. Thematic adjectives saturate a theta-role (generally an Agent or Theme) of the thematic grid of the noun. According to Bosque and Picallo (1996, p.361), classificatory adjectives are 'semantic adjuncts that function as restrictive modifiers' of the noun. That is, they connect the noun to a domain by which they will be classified (i.e. they denote a class of item).

(35) *La pesca **ballenera***   *thematic relational adjective*
      The fishing **whaling**
      'The whaling fishing'

(36) *El barco **petrolero***   *classificatory relational adjective*
      The boat **oil**
      'The oil boat'

To illustrate, in (35) (example taken from Bosque and Picallo 1996, p.352) *ballenera* 'whaling' works as a thematic adjective because the head noun *pesca* 'fishing' is derived from a transitive verb (i.e. *pesca* is a deverbal noun derived from the verb *pescar* 'to fish') that involves two participants. Hence, *pesca* lexically licenses two thematic roles: an Agent that initiates the action of fishing and a Theme that is moved by the fishing action (i.e. the whales). Instead, as *petrolero* 'of oil or petroleum' modifies the common noun *barco* 'boat' (i.e. it lacks a theta-grid) in (36), it functions as a classificatory adjective. As Bosque (1993) claims, the semantic interpretation varies, since a thematic adjective gives rise to an interpretation such as 'concerning or relative to' (i.e. *ballenera* means 'fishing concerning whales' (35)), whereas a classificatory adjective denotes a subclass according to which the noun *barco* 'boat' is classified (e.g. an oil boat is a type of boat (36)).

In sum, depending on the theta-grid of the head noun, relational adjectives function as thematic or classificatory adjectives. Indeed, as can be seen in (37), the same adjective *ballenero* 'whaling' in (35) can also function as a classificatory adjective when it modifies a common noun. That is, *un barco ballenero* 'a whaling boat' is a specific type of boat, also known in English as a whale catcher boat.

(37) *El barco **ballenero***   *classificatory relational adjective*
      The boat **whaling**
      'The whaling boat'

Furthermore, as Bosque (1993) points out, it may be the case that the same adjective functions as a thematic or a classifiying adjective of the same head noun. For

example, in (38) (example taken from Bosque, 1993, p.11) the adjective *molecular* functions as a thematic adjective because it absorbs an Agent role (i.e. the initiator of the event) of the theta-grid of the common noun *estructura*[5]. Hence, *molecular* is 'the subject of the predication' (Bosque, 1993, p.11). Therefore, it corresponds to an interpretation such as *la estructura de las moléculas* 'the structure of molecules' or *las moléculas tienen estructura* 'molecules have structure'. By contrast, in (39) (example taken from Bosque, 1993, p.11) the Agent theta-role licensed by the noun *estructura* is saturated by the prepositional complement *de acero* 'of steel' (i.e. *la estructura del acero* 'the structure of steel'). As a consequence, *molecular* is interpreted as a classificatory adjective since the Agent theta-role has already been saturated. This gives rise to a restrictive interpretation, similar to the genitive case.

(38) *La estructura **molecular***   *thematic relational adjective*
      The structure **molecular**
      'The molecular structure'

(39) *La estructura **molecular** del acero*   *classificatory relational adjective*
      The structure **molecular** of-the steel
      'The molecular structure of steel'

For our research purposes, the relevance of this discussion about the thematic and classificatory distinction resides in the fact that relational adjectives such as *molecular* are exclusively grammatical as copular complements with *ser* when they are classificatory adjectives, but ungrammatical when they work as thematic adjectives. This contrast is illustrated in (40), where the subject is *la estructura de acero* 'the structure of steel' and in (41) where the subject is *la estructura* 'the structure'.

(40) *La estructura del acero **es/*está molecular**.*   *classificatory adjective*
      The structure of-the steel be_{SER/ESTAR-PRESENT- 3SG} **molecular**.
      'The structure of steel is molecular.'

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[5] Unlike *pesca* 'fishing', *estructura* 'structure' is not a deverbal noun. Indeed, it is a common noun originally derived from the Latin noun *structura.*

(41) *La estructura ***es/*está molecular**.*   *thematic adjective*
    The structure be_{SER/ESTAR-PRESENT- 3SG} **molecular**.
    'The structure is molecular.'

The same distinction stands for the relational adjective *ballenera* 'whaling'. In this instance, *ser* is able to predicate a subclass (i.e. equivalent to a genitive complement) from a common noun such as *el barco* 'the boat', as can be seen in (42), but fails to saturate the Agent theta-role licensed by the deverbal noun *pesca* 'fishing', as (43) shows.

(42) *El barco <u>es</u>/*está **ballenero**.*   *classificatory adjective*
    The boat be_{SER/ESTAR-PRESENT- 3SG} **whaling**.
    'The boat is whaling.'

(43) *La pesca ***es/*está ballenera**.*   *thematic adjective*
    The fishing be_{SER/ESTAR-PRESENT- 3SG} **whaling**.
    'The fishing is whaling.'

Likewise, adjectives deriving from nouns, so-called denominal adjectives[6], such as *bilingüe* 'bilingual', *europeo* 'European' and adjectives of colour (e.g. *azul* 'blue') generally function as classificatory relational adjectives and therefore can function as copular complements (see (47)–(49)). However, note that classificatory relational adjectives either combine with *ser* (47) or with both copular verbs (48)–(49). Let us note that while with *ser* the property is attributed to the subject as such (i.e. a type of whale), with *estar* the property applies in reference to a particular occasion (Arche, 2006). Hence, in (48) the client behaves in a European fashion and in (49) the whale that has the ability to change colour (e.g. a light-emitting toy) or has been painted in blue.

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[6] As Bosque (1993) also pointed out there are denominal adjectives that are qualifying. For instance, *dantesco* 'dantesque', *quijotesco* 'quixotic' or *goyesco* 'of Goya'.

Denominal adjectives

(44) *Un profesor **bilingüe***   *denominal adjective*
   A teacher **bilingual**.
   'A bilingual teacher'

(45) *Un cliente **europeo***   *origin denominal adjective*
   A client **European**.
   'A European client'

(46) *La ballena **azul***   *adjective of colour*
   The whale **blue**.
   'The blue whale'

(47) *El profesor <u>**es/*está bilingüe**</u>.*
   The teacher **be**$_{\text{SER -PRESENT- 3SG}}$ **bilingual**.
   'The teacher is bilingual.'

(48) *El cliente <u>**es/#está europeo**</u>.*
   The client **be**$_{\text{SER/ESTAR-PRESENT-3SG}}$ **European**.
   'The client is European.'

(49) *La ballena <u>**es/está azul**</u>.*
   The whale **be**$_{\text{SER/ESTAR-PRESENT-3SG}}$ **blue**.
   'The whale is blue.'

To summarise, in this section, following traditional works (Bache, 1978; Demonte, 1999; Dixon and Aikhenvald, 2006, among others), I have provided a fine-grained taxonomy of adjectives and have shown that this affects their syntactic distribution. Specifically, according to the aforementioned authors, adjectives can be divided into two classes: the first class being qualifying adjectives (e.g. *tranquilo* 'calm'), which are able to occupy both an attributive and a predicative position (and therefore, they are compatible with *ser* and *estar*), and the second class, relational adjectives, which exhibit a more restrictive syntax. To specify, the latter group has been subdivided into two classes according to the relationship they establish with the head noun; thematic adjectives (e.g. *ballenera* 'whaling' in *pesca ballenera* 'whale fishing') which absorb a thematic role licensed by the noun, and classificatory adjectives (e.g. *honorario* 'honorary', origin adjectives such as *europeo* 'European' and adjectives of

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colour such as *azul* 'blue'), which work as semantic adjuncts that introduce a domain according to which the noun is classified. Of the two, we will concern ourselves with classificatory relational adjectives since they are able to appear as part of copular clauses as only-*ser* adjectives (e.g. *bilingüe* 'bilingual') or as dual adjectives (e.g. *europeo* 'European', *azul* 'blue').

In the next section I will provide a further taxonomy of classificatory relational adjectives and qualifying adjectives according to their copular compatibility. I will specify which adjectives go only with *ser,* which adjectives are compatible only with *estar* and which adjectives combine with both copulas.

2.4 Adjectives that combine only with *ser*

In this section, I provide a detailed classification of those adjectives that are compatible exclusively with *ser.* Specifically, the group of so-called only-*ser* adjectives consist of classificatory relational adjectives (e.g. *bilingüe* 'bilingual', *famoso* 'famous', *legal* 'legal, law-abiding') (Demonte, 1999; Rainer, 1999; Fernández Leborans, 1999; Marín, 2010; Gumiel Molina and Pérez Jiménez, 2012; among others) and propositional adjectives (e.g. *necesario* 'necessary') (Escandell Vidal and Leonetti, 2002).

On the one hand, following Demonte (1999, p.158), classificatory relational adjectives appear in copular clauses when the subject is a common noun such as *el colegio* 'the school' (50), *la revista* 'the magazine' (51) or a deverbal event noun such as *la elección* 'the election' (52). However, as we observe below, they can also modify non-deverbal event nouns such as *el negocio* 'the business' (53) or even animate nouns (e.g. Ana) (54).

Classificatory relational adjectives as copular complements of *ser*

(50) *El colegio **es/*está bilingüe**.*
The school be_{SER/ESTAR -PRESENT- 3SG} **bilingual**.
'The school is bilingual.'

(51) *La revista **es**/*está **anual**.*
The magazine be_{SER/ESTAR-PRESENT- 3SG} annual.
'The magazine is annual.'

(52) *La primera elección de la que salió vencedor **fue**/*estuvo **municipal**.*
The first election of the that come-up_{PRET/3SG} winner be_{SER/ESTAR-PRESENT- 3SG} **municipal**.
'The first election in which he was the winner was municipal.'

(53) *El negocio **es/*está legal**.*
The business be_{SER/ESTAR-PRESENT- 3SG} **legal**.
'The business is legal.'

(54) *Ana **es/*está legal**.*
Ana be_{SER-PRESENT- 3SG} **legal**.
'Ana is law-abiding.'

Note that even though *legal* 'legal' carries a meaning of 'legal, law-abiding', it gives rise to two interpretations according to the animacy of the subject. In (53) the business is authorized by law, whereas in (54) it conveys the meaning that Ana is a law-abiding or honest person. Finally, as Rainer (1999) points out, classificatory relational adjectives are denominal, hence they carry suffixes and accept the paraphrasis 'that it is related to Noun'. For example, *comercial* means 'that it is related to commerce' (50). As the same author details (1999, pp.4611–4621), there are more than seventy suffixes to derive classificatory relational adjectives in Spanish. The following ten are the most productive suffixes: *-al/-ar, -ario, -ano, -ero/a, -esco, -ico, -ivo, -ista,* or *–il*.

On the other hand, we have *propositional adjectives* (55) such as *necesario* 'necessary'. As Escandell Vidal and Leonetti (2002, p.169) discuss, propositional adjectives receive this name because they 'take a propositional argument as their subject'. That is, *necesario* 'necessary' contains an internal argument that is a proposition. For instance, both the event noun *el debate* 'the debate' (55) and the

infinite *debatir* 'to-debate' (56) represent the same proposition. One would think that even in the case of an inanimate noun such as *el dinero* 'the money' and even *Juan*, the fact of having money (56) or Juan's collaboration (58) are the underlying propositions. Consequently, the internal subject can either raise up to the specifier (subject position) or remain in its original position (i.e. behind *necesario*) (compare (55)–(58) to (59)–(62)).

Propositional adjectives as copular complements

(55) *El debate __es/*está necesario__.*
The debate **be**_{SER/ESTAR-PRESENT- 3SG} **necessary**.
'Debate is necessary.'

(56) *Debatir __es/*está necesario__.*
To-debate **be**_{SER/ESTAR-PRESENT- 3SG} **necessary**.
'Debating is necessary.'

(57) *El dinero __es/*está necesario__.*
The money **be**_{SER/ESTAR-PRESENT- 3SG} **necessary**.
'Money is necessary.'

(58) *Juan __es/*está necesario__.*
Juan **be**_{SER/ESTAR-PRESENT- 3SG} **necessary**.
'Juan is necessary.'

(59) *__Es/*está necesario__ el debate.*
be_{SER/ESTAR-PRESENT- 3SG} **necessary** the debate.
'The debate is necessary.'

(60) *__Es/*está necesario__ debatir.*
be_{SER/ESTAR-PRESENT- 3SG} **necessary** to-debate.
'It is necessary to debate.'

(61) *__Es/*está necesario__ (tener) el dinero.*
be_{SER/ESTAR-PRESENT- 3SG} **necessary** (to-have) the money.
'It is necessary to have money.'

(62) *__Es/*está necesario__ tener a Juan.*
be_{SER/ESTAR-PRESENT- 3SG} **necessary** to-have to Juan.
'It is necessary to have Juan.'

(63) **_Es/*está obligatorio_** _el uso del casco._
   be_{SER/ESTAR-PRESENT- 3SG} compulsory the use of-the helmet.
   'The use of the helmet is compulsory.'

(64) **_Es/*está obligatorio_** _usar el casco._
   be_{SER/ESTAR-PRESENT- 3SG} compulsory to-use the helmet.
   'It is compulsory to use the helmet.'

(65) _El casco_ **_es/*está obligatorio_**.
   The helmet **be**_{SER/ESTAR-PRESENT- 3SG} **compulsory**.
   'The helmet is compulsory.'

With respect to their copular distribution, Escandell Vidal and Leonetti (2002) argue that the incompatibility of propositional adjectives with _estar_ lies in the fact that propositional entities refer to concrete events or facts that 'do not seem to be conceivable as the object of perception' (Escandell Vidal and Leonetti, 2002, p.169). These authors propose three examples of propositional adjectives: _necesario_ 'necessary', _falso_ 'false, forged' and _evidente_ 'apparent'. We will also include within this group modal adjectives such as _posible_ 'possible', _probable_ 'probable' and _obligatorio_ 'compulsory' (63)–(65)[7].

Finally, there is another group of adjectives that are not allowed as copular complements, neither with _ser_ nor with _estar_, and will, therefore, be excluded from our experimental sudy. These are the so-called _non-subsective adjectives_ (e.g. _presunto_ 'alleged') (Kamp and Partee, 1995, p.138 for English, Demonte 1999, p.139 for Spanish). Note that when the non-subsective adjective _presunto_ 'alleged' occurs in an attributive position, such as in _el presunto estafador_ 'the alleged swindler', the adjective does not attribute a property to the noun, instead it indicates that the referent may or may not be a swindler.

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[7] As a remark, it is interesting to highlight the case of participial adjective _prohibido_ 'forbidden' since despite having propositional entities as subjects, it is exclusively compatible with _estar_. I owe such an interesting observation to Carlos Moreno Aja.

   1. **_*Es/está_** _prohibido el paso._
      be_{SER/ESTAR-PRES- 3SG} forbidden the step.
      'It is forbidden the admission.'

   2. **_*Es/está_** _prohibido pasar._
      be_{SER/ESTAR-PRES- 3SG} forbidden to-trespass.
      'It is forbidden to trespass. (No trespassing)'

(66) *El estafador *es/*está presunto*.

The swindler be_{SER/ESTAR-PRESENT- 3SG} alleged.

'The swindler is alleged.'

Classificatory relational adjectives: *accidental* 'accidental', *adicto* 'adict', *alcohólico* 'alcoholic', *alérgico* 'allergic', *analfabeto* 'illiterate', *anómalo* 'anomalus', *anónimo* 'anonymous', *anual* 'annual', *aplicable* 'applicable', *apto* 'capable', *auténtico* 'authentic', *bilingüe* 'bilingual', *bisexual* 'bisexual', *carnívoro* 'carnivorous', *catastrófico* 'catastrophic', *circunstancial* 'circumstantial', *comercial* 'commercial', *concluyente* 'conclusive', *coetáneo* 'coetaneous', *confidencial* 'confidential', *constante* 'constant', *contagioso* 'contagious', *contemporáneo* 'contemporary', *convincente* 'convincing', *culpable* 'guilty', *definitivo* 'definitive', *efímero* 'ephemeral', *enfermizo* 'unhealthy', *esencial* 'essential', *estudiantil* 'student', *(in)evitable* '(un)avoidable', *desechable* 'disposable', *diario* 'daily', *diurno* 'diurnal', *drogodependiente* 'drug addict', *estatal* 'state', *extranjero* 'foreign', *emigrante* 'emigrant', *famoso* 'famous', *gratuito* 'free', *global* 'global', *homosexual* 'homosexual', *heterosexual* 'heterosexual', *ideológico* 'ideological', *idóneo* 'appropriate', *(in)capaz* '(in)capable', *ignorante* 'ignorant', *impermeable* 'waterproof', *(in)conmensurable* 'immense', *industrial* 'industrial', *ínfimo* 'negligible', *inmigrante* 'immigrant', *(in)mortal* 'immortal', *inocente* 'innocent', *(in)tangible* '(in)tangible', *(in)culto* '(un)cultured', *(i)legítimo* '(il)legal, (il)legitimate', *mensual* 'monthly', *musical* 'musical', *potable* 'drinking', *legal* 'legal', *local* 'local', *mínimo* 'minimum', *minusválido* 'disabled', *monolingüe* 'monolingual', *municipal* 'municipal', *nocturno* 'nocturnal', *opcional* 'optional', *orgánico* 'organic', *parlamentario* 'parliamentary', *partícipe* 'participant', *personal* 'personal', *popular* 'popular', *plurilingüe* 'multilingual', *publicitario* 'advertising', *reciclable* 'recyclable', *sabio* 'wise', *semanal* 'weekly', *similar* 'similar', *temporal* 'temporary', *tóxico* 'toxic', *transexual* 'transsexual', *toxicómano* 'drug addict', *unánime* 'unanimous', *urgente* 'urgent', *universal* 'universal', *válido* 'valid', *vegetariano* 'vegetarian', *verdadero* 'true'.

> **Propositional adjectives***: evidente* 'apparent'*,* e*mocionante* 'exciting', *falso* 'false/forged'[8]*, frecuente* 'frequent', *habitual* 'habitual', *(in)diferente* '(in)different', *indignante* 'outrageous', *(in)discutible* '(in)disputable', *(in)dispensable* '(in)dispensable', *(in)viable* '(un)viable', *irrebatible* 'irrefutable', *irrefutable* 'irrefutable', *(in)necesario* '(un)necessary', *sorprendente* 'surprising', *sospechoso* 'suspicious'.
>
> **Modal adjectives:** *(im)posible* '(im)possible'*, (im)probable* '(im)probable', *obligatorio* 'obligatory'

Figure 2.1: List of only-*ser* adjectives

To summarise, this section has provided a detailed classification of those adjectives that combine with *ser*, which I will call only-*ser* adjectives (see Figure 2.1). These are classificatory relational adjectives (e.g. *bilingüe* 'bilingual', *legal* 'law-abiding') (Demonte 1999, p.54) that denote subclasses according to which the subject of the copular clause is classified, and propositional adjectives (e.g. *necesario* 'necessary') (Escandell Vidal and Leonetti 2002, p.169) that carry propositional arguments as subjects. I will now move on to describe those adjectives that are exclusively compatible with *estar*.

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8 As has been claimed in the literature (Kamp and Partee, 1995, p.138 for English, Demonte, 1999, p.139 for Spanish), *falso* 'false/forged' is a *privative adjective*. This is an adjective that is characterized by denying the property of the head noun that modifies both in attribution (1) and in predication (2)–(3). Regarding copular clauses, *falso* only combines with *ser*. Hence in (2) if *el billete* 'the banknote' is a counterfeit, it entails that it is not a legal tender banknote. Instead, in (3) it denies that Adrián is not authentic as a person.

(1)　　*Un billete falso.*
　　　　A banknote false
　　　　'A counterfeit banknote'
(2)　　*El billete es/*está falso.*
　　　　The banknote **be**_{SER/ESTAR-PRESENT- 3SG} counterfeit.
　　　　'The banknote is fake.'
(3)　　*Adrián es/*está falso.*
　　　　Adrián **be**_{SER/ESTAR-PRESENT- 3SG} false.
　　　　'Adrián is untrue/dishonest.'

2.5 Adjectives that combine only with *estar*

In this section I will establish the set of adjectives that are only compatible with *estar* (see (67) and (68)). To this end, I will illustrate the well-formed nature of these adjectives in other syntactic constructions that give rise to a reading equivalent to the one of *estar*. Following Marín (2010) here, only-*estar* adjectives (e.g. *contento* 'happy', *enferma* 'sick') can appear with *restrictive pseudo-copular verbs* that have lost its original meaning of motion (e.g. *andar* 'to walk', *ir* 'to go' and *venir* 'to come', as shown in (69)–(70)) or that preserving their original denotation, indicate internal aspectual properties such as duration (e.g. *continuar* 'to continue', *seguir* 'to follow' as in (71)–(72)) or culmination (e.g. *terminar* 'finish', *ponerse* 'to fall', as illustrated in (73)–(74)). Likewise, only-*estar* adjectives are possible as predicative complements of the subject (75) and of the direct object (76), as well as absolute constructions (see (77)–(78)).

(67) *María *es/__está contenta__.*
María **be**_{ESTAR-PRESENT- 3SG} **happy**.
'María is happy.

(68) *María *es/__está enferma__.*
María **be**_{ESTAR-PRESENT- 3SG} **sick**.
'María is sick.'

Restrictive pseudo-copular verbs

(69) *María __va/viene__ enferma.*
María **go/come**_{PRESENT-3SG} **sick**.
'María is sick.'

(70) *María __anda__ enferma.*
María **walk**_{PRESENT-3SG} **sick**.
'María is sick.'

(71) *María __continúa__ enferma.*
María **continue**_{PRESENT-3SG} **sick**.
'María continues (to be) sick.'

(72) *María **sigue enferma.***
María **continue**PRESENT-3SG **sick**.
'María continues (to be) sick.'

(73) *María **terminó enferma.***
María **end**PRETERITE-3SG **sick**.
'María is (fell) sick.'

(74) *María **se puso enferma**.*
María SE **get**PRET-3SG **sick**.
'María fell sick.'

Predicative complements

(75) *Pedro~i~ **llegó** a la oficina **contento**~i~.*
Pedro **arrive**PRETERITE-3SG at the office **happy**.
'Pedro arrived at the office happy.'

(76) *Pedro **vio** a María~i~ **enferma**~i~.*
Pedro **see**PRETERITE-3SG to María **sick**.
'To Pedro María looked sick.'

Absolute constructions

(77) ***Enferma**, Sara no pudo ir al trabajo.*
Sick, Sara not could PRET-3SG go to-the work.
'(Sara,) being sick, could not go to work.'

Augmented absolute construction with *con* 'with'

(78) *Con Sara **enferma**, Luis tiene más trabajo.*
With Sara **sick**, Luis has more work.
'With Sara sick, Luis has more work.'

As mentioned earlier, predicative complements are temporally defective constructions that lack both grammatical tense (i.e. they lack Tense and Agreement functional nodes) and an overt subordinating conjunction. Consequently, only a simultaneity relation can exist between the matrix event (e.g. María arrived at the office) and the state that the adjective describes (e.g. *contenta* 'happy'). As noted by Demonte and Masullo (1999, pp. 2469–2470), predicative complements can be either optional or obligatory. When they are not lexically selected by the verb (e.g. *llegar* 'to

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arrive'), they add supplementary information about the subject (75) (i.e. the predicative complement makes reference to the state of Pedro when he arrived at the office) or the direct object (as *María* in (76)). By contrast, when predicative complements are compulsory, the verb builds a complex relationship with the predicative complement (i.e. they function as one syntactic-semantic unit) (Demonte and Masullo, 1999, p.2499), leaving aside its original lexical meaning (e.g. *tener* 'to have' as in (79) (example taken from Marín 2010, p.313) and *dejar* 'to leave' as in (80)).

Obligatory predicative complements

(79) *Juan **tiene enfermo** a su padre.*
Juan **have**PRESENT-3SG **sick** to his father.
'Juan's father is sick.'

(80) *Juan **dejó sola** a su hija.*
Juan **leave**PRETERITE-3SG **alone** to his daughter.
'Juan left his daughter alone.'

Unlike predicative complements, the interpretation of absolute clauses[9] (Stump, 1985 for English and Hernanz Carbó, 1991; Fernández Leborans, 1995b; Hernanz Carbó and Suñer Gratacós 1999; Marín, 2000; Pérez Jimenez, 2006 for Spanish) (81)– (82) is not exclusively temporal but also causal or conditional.

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[9] Although our main focus here are adjectival phrases, observe that the predicate position of absolute clauses can be occupied by a vast array of non-finite verbal forms, such as participles (1), gerunds (2), prepositional phrases (3) and adverbial phrases (4).

(1) ***Llegada** la hora, María tuvo que despedirse de sus padres.*
Arrived the hour, María had PRET-3SG to say-goodbye of her parents.
'When the time came, María had to say goodbye to her parents.'

(2) ***Trabajando**, María conoció a su mejor amiga.*
Working, María met PRET-3SG to her best friend.
'While working, María met her best friend.'

(3) ***Sin prisas**, llegarás lejos.*
Without hurry, arrive FUT-2SG far.
'Being in no hurry, you will go far.'

(4) ***Cerca el uno del otro**, se distraen mucho.*
Close the one from-the other, se distract PRES-3PL a lot.
'Being close to one another, they are frequently distracted.'

Absolute clauses

(81) ***Enferma**, Sara no fue al trabajo.*   *empty category*
　　　Sick, Sara not went_{PRET-3SG} to-the work.
　　　'(Sara,) being sick, did not go to work.'

(82) ***Enferma Sara**, se canceló la clase.*   *explicit subject*
　　　Sick Sara, se cancelled_{PRET-3SG} the class.
　　　'(Because) Sara (is) sick, the class was cancelled.'

The examples (81)–(82) can be paraphrased by a causal (83) or conditional (84) adverbial clause. Notice that the corresponding adverbial subordinate clause only admits *estar* (83).

(83) *Como Sara *era/__estaba enferma__, ...*
　　　As Sara was_{SER/ESTAR IMPERFECT-3SG} **sick**, ...
　　　'As Sara was sick,…'
(84) *Si Sara *era/__estaba__ enferma, ...*
　　　If Sara was_{SER/ESTAR IMPERFECT-3SG} **sick**, ...
　　　'If Sara was sick,…

One variant of absolute constructions is augmented absolute constructions (idem). They differ from the former in that they are headed by the preposition *con* 'with' and have subject-predicate order (85).

Augmented absolute construction with *con* 'with'

(85) *Con Sara **enferma**, Luis tiene más trabajo.*
　　　With Sara **sick**, Luis has more work.
　　　'With Sara sick, Luis has more work.'

Among the properties of the adjectives that combine with *estar*, several authors (Demonte, 1979; Bosque, 1990; Hernanz Carbó, 1991; Asociación de Academias de la Lengua Española, 2010, among others) have argued that they align *prima facie* with past participles because both give rise to a resultative or final reading. This is why these authors call them *perfective adjectives*. It amounts to saying that the adjective *enferma* 'sick' in (81) denotes a perfective state (i.e. a resultative state that preceeds the event of the main clause) equivalent to the perfective state indicated by the past participle

enfermado 'fell ill'. Bosque (1990) claims that *perfective adjectives*[10], given their deverbal origin, have inherited an <e> eventive argument that triggers a resultative change of state, however, this is not confirmed by all the data. As noted by Arche (2012) and Arche *et al.* (to appear) the resultative interpretation is yielded by the syntactic construction (89) rather than the adjective itself (89). Note that we do not obtain a resultative interpretation in copular clauses with other so-called perfective adjectives (86)–(88). For instance, the property of being alone (86), uninjured (87) or empty (88) does not require a previous process nor does it indicate a 'reached state'. Indeed, the fact that the suitcase is empty does not necessarily convey that it has been previously emptied (let us imagine a brand-new suitcase) (86) (example adapted from Arche 2012, p.121).

(86) *Juan *es/está solo.*
     Juan be_SER/ESTAR-PRESENT-3SG **alone**.
     'Juan is alone.'

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[10] There has been much debate about the directionality of the morphological derivation of perfective adjectives. This is relevant as it concerns how perfective adjectives obtain perfectivity. There are two possibilities; either perfective adjectives are inherently perfective, therefore the verb *llenar* 'to fill' would be a deadjectival verb (i.e. the order of the derivation is *lleno>llenar>llenado* 'full>to fill>filled') or, to the contrary, as Bosque (1990) postulates, perfective adjectives are deverbal. That is to say, they inherit perfectivity from the past participle following this order of lexical derivation *llenar>llenado>lleno* 'to fill>filled>full'. This author justifies the order of derivation in the following way:

'A solution would consist in changing the direction of the lexical derivation. It could be thought that the derivational process is not "*llenar>lleno>llenado*" 'to fill>filled>full', that is to say, that we are in front of de-adjectival verbs and not deverbal adjectives. [...] The question of the directionality is nonetheless trivial for the lexical morphology, but we understand that changing its direction in these cases would have the major drawback of postulating "reached states" before the process that defines them as such.' [Translation is mine][10]

Be that as it may, Bosque (1990, p.189) postulates, along the lines of Levin and Rappaport (1986), that the verb *llenar* 'to fill' has originally two arguments that the participial adjective *llenado* 'filled' inherits, but the perfective adjective *lleno* 'full' does not. See that in (1) the external argument (the Agent) is *el camarero* 'the waiter' and the internal argument (e.g. the Theme) is *el vaso* 'the glass'. What happens in the derivational process is that the perfective adjective *lleno* 'full' loses the Agent, so that the internal argument *el vaso* 'the glass' 'externalizes' and raises up to the subject position. This explains the ungrammaticality of *lleno* 'full' with the insertion of the by-phrase *por el camarero* 'by the waiter' (2).

(1) *El vaso **es/*está llenado** por el camarero.*   *participial adjective*
     The glass be_SER/ESTAR-PRESENT-3SG **filled** by the waiter.
     'The glass is filled by the waiter.'
(2) *El vaso *es/está lleno (*por el camarero).*   *perfective adjective*
     The glass be_SER/ESTAR-PRESENT-3SG **filled** by the waiter.
     'The glass was full (by the waiter).'

(87) *Juan *es/está ileso.*

Juan **be**_{SER/ESTAR-PRESENT-3SG} **uninjured**.

'Juan is uninjured.'

(88) *La maleta *es/está vacía.*

The suitcase **be**_{SER/ESTAR-PRESENT-3SG} **empty**.

'The suitcase is empty.'

(89) *Juan resultó ileso.*

Juan **come out**_{PRETERITE-3SG} **uninjured**.

'Juan came out uninjured.'

To summarise, this section has determined which adjectives go exclusively with *estar* (see Figure 2.2) by analyzing not only copular clauses but also other syntactic constructions such as predicative complements and absolute constructions that give rise to a reading that can be paraphrased with *estar*.

Qualifying adjectives: *absorto* 'absorbed', *afónico* 'hoarse', *alerta* 'alert', *ausente* 'absent', *borracho* 'drunk', *contento* 'happy', *desnudo* 'naked', *disperso* 'disperse', *disponible* 'available', *ebrio* 'drunk', *embarazada* 'pregnant', *encinta* 'pregnant', *enfermo* 'ill', *eufórico* 'euphoric', *exento* 'exempt', *exhausto* 'exhausted', *furioso* 'furious', *hambriento* 'hungry', *histérico* 'hysterical', *ileso* 'uninjured', *inmerso* 'absorbed', *intacto* 'intact', *junto* 'joined', *lúcido* 'clearheaded', *lleno* 'full', *loco* 'crazy', *oculto* 'hidden', *perplejo* 'perplexed', *presente* 'present', *pletórico* 'exultant', *quieto* 'still', *repleto* 'full', *rabioso* 'furious', *sobrio* 'sober', *solo* 'alone', *tembloroso* 'shivering', *suelto* 'loose, unleashed', *sujeto* 'held', *tibio* 'warm', *tísico* 'consumptive', *vacío* 'empty'.

Figure 2.2: List of only-*estar* adjectives

2.6 Adjectives that combine with both copulas

So far we have identified those adjectives that combine exclusively with one copula (namely, only-*ser* adjectives such as *famoso* 'famous' and only-*estar* adjectives such as *contento* 'happy'). I focus now on the study of those adjectives that are compatible with both copulas, which I will denominate "dual adjectives" (following María J. Arche's

suggestion in p.c.). These adjectives are particularly interesting because they yield minimal pairs that only differ in the copular verb at hand (compare (90) and (91)). As discussed thoughout this work, following Arche (2006) and Arche *et al*. (to appear), *ser* is used to predicate a property of the subject in and of itself (e.g. (90) casts Ana into the class of cheerful type of people), whereas *estar* attributes the property in reference to a given circumstance. Thus, when *estar* is conjugated in the Present tense as in (91), it predicates the property of being cheerful with reference to the moment of utterance (i.e. *en este momento* 'at this moment').

(90) *Ana **es alegre**.*
    Ana be$_{SER-PRESENT-3SG}$ **cheerful**.
    'Ana is cheerful (type of person).'

(91) *Ana **está** alegre.*
    Ana be$_{ESTAR-PRESENT-3SG}$ **cheerful**.
    'Ana is cheerful (at this moment).'

Intuitively, for the native Spanish speaker, *ser* ascribes properties that relate to the nature of the subject, whereas *estar* assigns transitory characteristics. In order to capture these interpretations, traditional grammarians (Bello, 1847; Morley, 1925; Ramsey, 1956; Roldán, 1974; Navas Ruiz, 1977; Porroche Ballesteros, 1988; among others) resorted to the Aristotelian distinction between essence and accident to characterize the Spanish copular verbs. It was then argued that *ser* assigns essential, immutable and permanent qualities to the subject, whereas accidental, circumstantial and episodic ones correspond to *estar*. More specifically, Ramsey (1956, p.312) (original work from 1894) states: 'Further illustrations of the use of 'ser' *to be by nature, inwardly, absolutely* and estar *to be by condition, outwardly, relatively,* when introducing an adjective […]'.

This traditional account at present remains the most common explanation in an L2 classroom. However, there are important shortcomings that make us doubt its

validity[11]. As Falk (1979, p.276) points out, this account seems to mistakenly delegate the final decision to the speaker (or L2 learner), who seems to become a "supreme referee" (in Falk's words), deciding if a property is conceived as permanent or transitory. Moreover, it fails to provide a convincing explanation for those adjectives that are vulnerable to the passage of time (e.g. *joven* 'young') or subject to change (e.g. *alta* 'tall', *delgada* 'thin', *fea* 'ugly', *feliz* 'happy', *guapa* 'pretty', *viejo* 'old', *tranquila* 'calm' etc.) and yet they are compatible with both copular verbs (see (92) and (93)).

(92) *Ana <u>es</u> joven.*
　　　Ana **be_{SER-PRESENT- 3SG}** young.
　　　'Ana is young.'

(93) *Ana <u>está</u> joven.*
　　　Ana **be_{ESTAR-PRESENT- 3SG}** young.
　　　'Ana is(looks) young.'

Next, I will analyse other syntactic constructions where only one of the readings of a dual adjective emerges. As shown above for only-*ser* adjectives (section 2.4), we obtain a reading equivalent to that of *ser* (i.e. a reading that attributes the property to the subject in and of itself) in small clause complements of *parecer* 'to seem' (94) and *considerar* 'to consider'.

Small clause complements

(94) *María <u>parece joven</u>.*
　　　María **seem_{PRESENT- 3SG} young**.
　　　'María seems young.'

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[11]The classic counterexample that casts doubts upon the permanent/transitory distinction is the adjective *muerto* 'dead' is only compatible with *estar* despite the fact that it denotes a permanent state. Equally important are the adjectives such as *accidental* 'accidental', *circunstancial* 'circumstantial', *efímero* 'ephemeral', *fugaz* 'fleeting', *instantáneo* 'instant', *inmediato* 'immediate' or *pasajero* 'temporary'. Although these adjectives indicate a brief period of time, they invariably combine with *ser*. Let us remind the reader that, in our classification *muerto* 'dead' is considered an only-*estar* adjectives (in particular is a participial adjective derived from the verb *morir* 'to die') whereas the latter group adjectives are classificatory relational adjectives (of denominal origin) and therefore, they only combine with *ser*.

(95) ***Considero*** *muy* **amable** *a Pedro.*
   I-consider_{PRESENT- 3SG} very **kind** to Pedro.
   'I consider Pedro (to be) very kind.'

Additionally, as noticed by Demonte (1979; 1999; 2008), I include here the adjectival modification inside the determiner phrase to show that in the absence of a verb, dual adjectives give rise to a reading compatible to that of *ser*. As can be seen, when a dual adjective modifies a common noun in postnominal position (96), it corresponds to a determiner phrase containing a relative clause with *ser*, while the same relative clause with *estar* is excluded (97).

Adjectival modification of the determiner phrase

(96) *La persona* **feliz** *disfruta de las pequeñas cosas de la vida.*
   The **happy** person enjoys the little things of the life.
   'The happy person enjoys the little things in life.'

(97) *La persona [que* **es/*está feliz**] *disfruta de las pequeñas cosas de la vida.*
   The person that **be**_{SER/ESTAR-PRESENT- 3SG} **happy** enjoys the little things of the life.
   'The person that is happy enjoys the little things in life.'

By contrast, other syntactic constructions bring about a reading that aligns with *estar* only. More definitively, adjectives in absolute constructions (98) and predicative complements (99)–(100) refer to properties that hold true of the subject at a particular circumstance.

Absolute constructions

(98) ***Nervioso_i,*** *Antonio_i derramó el café.*
   Nervous, Antonio spilt the coffee.
   'Antonio, being anxious, spilt the coffee.'

Predicative complements of the subject

(99) *Antonio **llegó** a la oficina **nervioso**.*
  Antonio **arrive_{PRETERITE-3SG}** at the office **nervous**.
  'Antonio arrived at the office anxious.'

Predicative complements of the direct object

(100) ***Veo** a Antonio **nervioso**.*
  I-see_{PRESENT-1SG} to Antonio **nervous**.
  'Antonio looks anxious to me.'

Upon closer examination, Marín (2010) observes that not all dual adjectival predicates in Spanish are felicitous as part of absolute clauses and predicative complements (compare (98)–(100) and (103)–(105)). This leads him to distinguish between two types of dual adjectives: those that are allowed to express a stage not only with *estar,* but also in other syntactic environments such as absolute constructions (98) and predicative complements of the subject (99) and of the direct object (100) (e.g. *nervioso* 'nervous'), and those that, having a more restrictive syntax, denote a stage only in combination with *estar* and as part of object predicative complements (e.g. *viejo* 'old'), as shown in (101)–(105). Note that the latter group of adjectives is ungrammatical in absolute constructions (103) and predicative complements of the subject (104). Here I will refer to these two groups as: *dual self-standing stage adjectives* (which can, on their own, constitute a clause) and *dual dependent-stage adjectives* (since they mainly refer to a stage in combination with *estar*), as suggested by Arche (p.c.) (see (103)–(105)). As the former tend to refer to qualities of physical appearance, I will call them dual dependent-stage adjectives of physical appearance.

Copular clauses with estar

(101) *Antonio **está nervioso**.*   *Dual self-standing stage adjectives*
  Antonio be_{ESTAR-PRESENT- 3SG} **nervous**.
  'Antonio is nervous (now).'

(102) *Antonio **está viejo**.*   *Dual dependent-stage adjectives*
  Antonio be_{ESTAR-PRESENT- 3SG} **old**.
  'Antonio is (looks) old.'

Absolute constructions

(103) ***Viejo$_i$, Antonio$_i$ se jubilará.***
      Old, Antonio will retire.
      'Antonio, being old, will retire.'

Predicative complements of the subject

(104) **Antonio <u>llegó</u> a la oficina *viejo*.*
      Antonio **arrive**_{PRETERITE-3SG} at the office **old**.
      'Antonio arrived at the office old.'

Predicative complements of the direct object

(105) ***<u>Veo</u> a Antonio viejo.***
      I-see_{PRESENT-1SG} to Antonio **old**.
      'Antonio looks old to me.'

Finally, among the group of dual adjectives I include dual adjectives of disposition (106)–(107). These adjectives allude to a disposition of the subject, such as *amable* 'kind'. As Arche (2006), Fábregas *et al.* (2013) and Arche *et al.* (to appear) point out, they sharply differ from dual self-standing stage and dual dependent-stage adjectives of physical appearance in that only adjectives of disposition exhibit dynamic properties.

(106) *María <u>es</u> amable.*
      María **be**_{SER-PRESENT- 3SG} **kind**.
      'María is kind.'

(107) *María <u>está</u> amable.*
      María **be**_{ESTAR-PRESENT- 3SG} **kind**.
      'María is kind (María has been kind).'

In order to prove that dual adjectives of disposition have dynamic properties, the main tests used in Arche (2006) are the following: occurrence in the progressive form (108), the habitual reading in the present tense (109) and compatibility with *dejar de* 'stop' (110).

(108) *María **está siendo amable**.*
María be_{ESTAR-PRESENT- 3SG} being_{SER} kind.
'María is being kind.'

(109) *Normalmente, María **es amable**.*
Normally, María be_{SER-PRESENT-3SG} kind.
'Normally, María is kind.'

(110) *María **ha dejado de ser** amable.*
María have_{PRESENT-3SG} left of be_{SER} kind.
'María has stopped being kind.'

In contrast, dual self-standing stage adjectives (e.g. *nerviosa* 'nervous') and dual dependent-stage adjectives of physical appearance (e.g. *vieja* 'old') are ungrammatical in the same syntactic contexts (111)–(113).

(111) **María **está siendo nerviosa/vieja**.*
María be_{ESTAR-PRESENT- 3SG} being_{SER} nervous/old.
'María is being nervous/old.'

(112) **Normalmente, María **es nerviosa/vieja**.*
Normally, María be_{SER-PRESENT-3SG} nervous/old.
'Normally, María is nervous/old.'

(113) **María **ha dejado de ser** nerviosa/vieja.*
María have_{PRESENT-3SG} left of be_{SER} nervous/old.
'María has stopped being nervous/old.'

Finally, Figure 2.3 provides a comprehensive list of dual adjectives: dual dependent-stage of physical appearance (e.g. *viejo* 'old'), dual dependent-stage of disposition (e.g. *amable* 'kind') and dual self-standing stage (e.g. *nervioso* 'nervous'). I have also reviewed those syntactic constructions that are able to yield only a reading comparable to *ser* (i.e. small complements and the postnominal adjectival position in the noun phrase) or a reading that correspond to that of *estar* (i.e. absolute constructions or predicative complements). As we will see in Chapter Four, these non-copular syntactic constructions will be particularly useful for the task design with dual adjectives (see Appendix A).

Dual dependent-stage adjectives of physical appearance (Falk, 1979; Marín, 2010): *alto* 'tall', *bajo* 'short', *estrecho* 'narrow', *feo* 'ugly', *flaco* 'thin', *gordo* 'fat', *grande* 'big', *guapo* 'handsome', *hermoso* 'gorgeous', *joven* 'young', *pequeño* 'small', *viejo* 'old'.

Dual dependent-stage adjectives of disposition (Arche, 2006; Arche *et al.* to appear): *apático* 'apathetic', *amable* 'kind', *antipático* 'unpleasant', *atento* 'attentive', *atrevido* 'insolent, cheeky', *cariñoso* 'affectionate', *cauto* 'cautious', *cruel* 'cruel', *cuidadoso* 'careful', *delicado* 'delicate', *(des)cortés* (im)polite, *desleal* (dis)loyal, *divertido* 'funny', *educado* 'polite', *efusivo* 'effusive', *estúpido* 'stupid', *grosero* 'rude', *honesto* 'honest', *imbécil* 'stupid', *(im)prudente* '(im)prudent', *(in)diferente* '(in)different', *(in)discreto* (in)discreet, *(in)fiel* '(un)faithful', *ingenioso* 'witty', *(in)justo* '(un)fair', *amable* 'kind', *intenso* 'intense', *interesante* 'interesting', *mentiroso* 'lying', *modesto* 'modest', *pedante* 'pretentious', *pesimista* 'pessimistic', *productivo* 'productive', *rebelde* 'rebellious', *sádico* 'sadistic', *salvaje* 'wild', *sensato* 'sensible, prudent', *simpático* 'pleasant', *sincero* 'sincere', *soberbio* 'arrogant', *tacaño* 'stingy', *temerario* 'reckless', *tímido* 'shy', *tonto* 'silly', *torpe* 'clumsy', *valiente* 'brave'.

Dual self-standing stage adjectives (Marín, 2010): *alegre* 'cheerful', *feliz* 'happy', *inquieto* 'restless', *intranquilo* 'restless', *nervioso* 'nervous', *tranquilo* 'calm'.

Figure 2.3: List of dual adjectives

Before proceeding any further, it is necessary to analyse how the semantic contrast that *ser* and *estar* yield is captured in English. To this end, I will mostly rely on the Individual-Level (IL) and Stage-Level (SL) distinction, which was originally proposed by Carlson for English bare plurals (1977) and which many authors (Fernández Leborans, 1999; Escandell Vidal and Leonetti, 2002; Arche, 2006; Marín, 2010; and Fábregas, 2012, among others) have argued to be lexicalised in Spanish by means of the copular verbs *ser* and *estar*.

2.7 The Individual-Level/Stage-Level dichotomy

Following Fernández Leborans (1999), Escandell Vidal and Leonetti (2002), Arche (2006), Marín (2010), Asociación de Academia de la Lengua Española (2010), Fábregas (2012), Fernández Leborans and Sánchez López (2015) and Arche *et al*. (to appear) among others, I treat *ser* and *estar* as the lexical exponents of the IL and SL distinction. In Carlson's analysis (1977), a stage is a happening or occurrence that holds true of an individual at a particular time and place, as exemplified in (116)–(117). Conversely, an IL predicate is regarded as 'whatever-it-is that ties a series of stages together to make them stages of the same thing' (1977, p. 115), as shown in (114)–(115) (examples taken from Carlson 1977). The author himself illustrates the SL/IL predicate distinction with the methaphor of a ground squirrel that pops in and out from different bushes on different occasions. Each one of these temporal and spatial occurrences where a ground squirrel appears is a stage, while a succession of stages of the same squirrel makes an individual (e.g. a ground squirrel called Dale).

(114) *John is a linguist.*   L (j)
(115) *John is intelligent.*   I (j)

(116) *John is in Boston.*   ∃ y [R (y, j) & in (Boston) (y)]
(117) *John is drunk.*   ∃ y [R (y, j) & D (y)]

According to Carlson (1977), SL predicates denote 'sets of stages'; therefore they require an additional realisation function R (of a semantic nature) that relates one of the stages to the individual (e.g. John in (116)–(117)). Instead, as IL predicates indicate 'sets of individuals', they apply directly to the subject. In doing so, IL predicates give rise to a generic or 'characteristic' reading (e.g. John exemplifies a kind of linguists (114) or a kind of intelligent people (115)), whereas SL predicates yield existential readings (e.g. there is a spatio-temporal stage that realises the subject John and in that stage John is in Boston (116) or drunk (117)).

Given that Carlson's adjectival classification (1977) takes into account Siegel's theory (1976) of non-intersective and intersective readings associated with adjectives, I will focus on this distinction first. Briefly explained, Siegel (idem) claims that those adjectives that carry a [–intersective] feature (e.g. *veteran*) attribute a property in relation to the noun they modify, yielding a relative interpretation. For instance, in (118) (example taken from Siegel 1976, p.48) Helga is veteran *as a manager* but not in relation to other roles she may hold (e.g. she is not veteran *as a daughter*). In this sense, Siegel argues that non-intersective adjectives take a common noun to make a new one. By contrast, adjectives that bear the feature [+intersective] denote a member that has the property of the adjective in an absolute sense (121). Similarly, Siegel proposes a third group of adjectives (e.g. *beautiful*) that being unmarked [±intersective] are ambiguous and she refers to them as *doublets*. Both (122) and (123) yield two possible interpretations: a non-intersective reading whereby the subject is beautiful as a dancer (but not necessarily as a pretty person) and an intersective one by which the subject falls within the set of dancers and the set of physically pretty people and consequently the subject has properties from both sets (i.e. Helga is pretty as a dancer as well as a person).

(118) *Helga is a veteran manager.*
(119) **The manager is veteran.*

(120) **Helga is an asleep banker.*
(121) *The banker is asleep.*

(122) *Helga is a beautiful dancer.*
(123) *The dancer is beautiful.*

Building on Siegel's theory, Carlson (1977) divides adjectives into three groups: firstly, as non-intersective adjectives (e.g. *veteran, indigenous,* etc) behave as noun phrases and, as noun phrases are exclusively IL predicates (114), Carlson classifies non-intersective adjectives within the group of adjectives that exemplify kinds of things. Secondly, we find a subset of intersective adjectives (e.g. *asleep, drunk,* etc) that only refer to stages or happenings of the individual, while the remaining intersective

adjectives may apply to stages, individuals and kinds (e.g. *intelligent, big,* etc). Following the tradition (Fernández Leborans, 1999; Escandell Vidal and Leonetti, 2002, Arche, 2006, Marín 2010, Fábregas, 2012, among others), I will refer to the first two groups of adjectives proposed by Siegel (1976) and Carlson (1977) as IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy') whereas the ones that are able to refer to stages, individuals and kinds will be called as dual adjectives (e.g. *viejo* 'old') since they are compatible with both *ser* and *estar*.

Following Chierchia (1995), let us note here that an IL predicate like *be intelligent* can be applied to the subject in and of itself ((114) repeated here as (124)), or can shift into a SL predicate as in (125) (example taken from Chierchia 1995, p.177). The latter example yields an interpretation whereby John behaved in an intelligent manner on a particular occasion. Along similar lines, Escandell Vidal and Leoneti (2002) claim that when *estar* combines with classificatory relational adjectives (e.g. *inteligente* 'intelligent') it coerces the IL predicate into a SL predicate when an explicit trigger (e.g. *hoy* 'today') is present, as shown in (126). It is through this pragmatic reinterpretation process that we obtain the reading of a property, such as intelligence, applied to a stage. However, following Arche (2006, p.252), I defend that there is no need to resort to a reinterpretation, since every adjective in combination with *ser* gives rise to an IL reading, while every adjective that appears with *estar* gives rise to a SL interpretation, linking the adjectival predicate to a specific situation.

(124) *John is intelligent.*
(125) *John was intelligent on Tuesday, but a vegetable on Wednesday.*

(126) *¡Vaya! ¡Qué **inteligente está** Juan hoy!*
    Wow! How **intelligent be**$_{\text{ESTAR-PRESENT- 3SG}}$ Juan today.
    'Wow! Juan is so intelligent today!'

Additionally, as Carlson (1977) postulates the existence of two homophonous verbs *be* in English: a lexically empty *be₁* that combines with IL predicates and a *be₂* that appears with SL predicates and therefore predicates a property in relation to a spatio-temporal limited stage of the individual, several authors (Lema, 1995; Fernández

Leborans and Sánchez López, 2015, among others) have sustained that *ser* is a vacuous or inert copula whose only function is to carry morphological and tense information, whereas *estar* is semantically specified.

What leads Carlson (1977) to conclude that *be₁* is semantically empty and *be₂* is not, resides on the interpretative contrast that English bare plurals yield depending on the type of predicate they combine with. Observe that when a bare plural contains an IL predicate such as (127), only a generic reading is possible, but if it contains a SL predicate we obtain two readings: an existential reading that makes reference to a particular occasion and a generic or characteristic reading where the passengers are classified among the people who are habitually drunk (128). This occurs because SL predicates carry a Generic operator that links stages of being drunk together and generalizes the SL predicate (on the basis of enough number of occasions), giving rise to a habitual reading. This author argues that SL predicates resemble activities (e.g. *run, eat,* etc.) that in the past tense are two ways ambiguous (129) (example taken from Carlson, 1977). They can either refer to one occasion in which Bill ran or a habitual characteristic of Bill in the past (i.e. Bill ran habitually).

(127) *Passengers are numerous.* (generic reading)
(128) *Passengers are drunk.* (generic/existential readings)

(129) *Bill ran.* (generic/existential readings)

Next, I detail a series of syntactic constructions where only one reading emerges. On the one hand, the tests that give rise to an IL interpretation are small clause complements of the governing verb *consider* and the raising verb *seem* (Stowell 1981). On the other hand, the tests that yield a stage interpretation are predicative complements (Siegel, 1976), existential clauses headed by the expletive *there* (Milsark, 1974) and augmented absolute constructions (Stump, 1985).

2.2.1 Individual-level tests. According to Stowell (1981), when a governing verb such as *consider* assigns a theta-role of propositional object to an infinitival complement (130) or a small clause complement (131) (examples taken from Stowell 1981, p.257), it attributes a property to the subject, e.g. John, as such. Here, two remarkable facts about small clause complements emerge: firstly, they are obligatory and secondly, they do not require an overt copula verb to yield an IL interpretation.

(130) *I consider [John to be very stupid].*
(131) *I consider [John very stupid].*

Stowell points out that we can obtain IL readings when small clause complements appear with raising verbs (e.g. *seem, appear, happen, prove,* etc). Observe that in (133) the subject of the small clause complement (i.e. *John*) raises up to the subject position (compare (132)–(133) examples adapted from Stowell 1981, p.353).

(132) *It seems to me that John is intelligent.*
(133) *John seems intelligent.*

Likewise, the subject of the small clause complement (i.e. *John*) raises to the specifier position in (135) and (137) (examples taken from Stowell, 1981, p.353) with the only difference being that in these cases, the raising verbs take an indirect object that receives the theta-role of Experiencer (i.e. *me, all of us*). The resulting comparative clauses (i.e. *as stupid* and *as very intelligent*) resemble the intensional interpretation of non-intersective adjectives proposed by Siegel (1976). Therefore, John falls with the set of stupid or intelligent people (see (135) and (137), respectively).

(134) *It strikes me that John is stupid.*
(135) *John strikes me as stupid.*
(136) *It impressed all of us that John is very intelligent.*
(137) *John impressed all of us as very intelligent.*

Now I will present the syntactic constructions that give rise to an SL reading only, more specifically predicative complements of perception verbs (Siegel, 1976), existential *there*-clauses (Milsark, 1974) and absolute constructions (Stump, 1985).

2.2.2 Stage-level tests. Carlson (1977) gathers a set of tests from Siegel (1976) and Milsark (1974) to claim that these syntactic constructions bring about a SL interpretation. These constructions are predicative complements of direct object (Siegel, 1976), existential *there*-clauses (Milsark, 1974) and augmented absolute constructions (Stump, 1985).

Firstly, I will discuss object predicative complements. Siegel (1976) argues that they select adjectives that yield an intersective reading. This includes adjectives that are [+intersective] (e.g. *drunk, asleep, nude,* etc.) (see (138)–(140)) as well as doublets that are [+intersective] (e.g. *beautiful, old, red,* etc.) (141). This author takes the latter example to show that the predicative complements do not select adjectives that refer to transitory properties. The doublet adjective *old* corresponds the stage in which the speaker saw a set of teachers who have aged (intersective reading), not a set of former teachers (non-intersective reading). In this regard, let us note that non-intersective adjectives (e.g. *veteran*) are ungrammatical as predicative complements (142) (examples taken from Siegel, 1976, pp. 65, 77 and 78). In like manner, Carlson (1977) argues that only SL predicates are well-formed as predicative complements of perception verbs (e.g. *see, hear, feel,* etc.).

(138) *I saw the president drunk.*
(139) *I caught the swimmers nude.*
(140) *I met the swimmers nude.*
(141) *I've seen a lot of my teachers old.*
(142) **I saw the president veteran.*

A further point of interest is one that Carlson (1977) notices, that not only SL adjectives, but also locative prepositional phrases (143), infinitival complements (144) and progressive complements (145) denote spatio-temporal stages of the individual (examples taken from Carlson, 1977).

(143) *Martha saw the policemen in the cruiser.*
(144) *Martha saw the policemen run into the bar.*
(145) *Martha saw the policemen running into the bar.*

Next, I will analyse existential *there*-clauses. Milsark (1974) accounts for the predicate restrictions in existential sentences headed by the expletive *there,* as illustrated in (146)–(148) (examples taken from Milsark, 1974, pp.214, 217). Specifically, when analysing adjectival predicates, this author points out that only state-descriptive predicates (e.g. *sick*) are possible in *there*-sentences (146), whilst property predicates (e.g. *tall*) are excluded. Milsark (1974) defines "properties" as "those facts about entities which are assumed to be, even if they are not in fact, permanent, unalterable, and in some sense possessed by the entity" (Milsark, 1974, p.212), whereas "states" are considered to be conditions which are believed to be dispensable. Thus, the removal of state adjectives does not modify the essential qualities of the entity. Carlson overcomes the permanent/transitory debate by arguing that only predicates that bring about a stage or occurrence of the individual (e.g. SL adjectives (146)–(147) and locative prepositional phrases (148)) are grammatical as the coda of existential clauses. Note that IL predicates such as *tall* are disallowed (150). Here I also include an example from Siegel (1976, p.77) (149) to show that a doublet adjective (i.e. an adjective that gives rise to an intersective and a non-intersective reading) also brings about a stage (intersective) interpretation in *there*-clauses. Hence, people were *red* because they were embarrassed although this is not a characteristic that they possess in and of themselves (non-intersective reading).

(146) *There are people sick.*
(147) *At the beach, there were several people naked.*

(148) *There were people in the room.*

(149) *There were a lot of faces red in the room that night.*

(150) **There are people tall.*

Finally, I will introduce augmented absolute constructions. Stump (1985) notices that absolute constructions headed by the preposition *with* are temporal defective constructions that select SL predicates only. As augmented absolute constructions denote an interpretation similar to an *if*-clause, in (151) (example taken from Stump 1985, p.273) it is stated that the event of watching TV in the superordinate clause will take place as long as the stage whereby children are *asleep* is fulfilled.

(151) *With the children asleep, María might watch TV.*

In this section I introduced how the Carlsonian distinction between an IL predicate and a SL predicate is captured in English since, following the tradition (Fernández Leborans, 1999; Escandell Vidal and Leonetti, 2002; Arche, 2006; Marín, 2010; Arche, 2012; Fábregas 2012; Arche *et al.* to appear), I assume that *ser* and *estar* are the lexical exponents of this distinction in Spanish. Following Carlson (1977), the lexically empty be_1 that goes with IL predicates corresponds to *ser*, whereas the be_2 that brings about a spatio-temporal variable and combines with SL predicates is equivalent to *estar*. Hence, every adjective that combines with *ser* (i.e. an IL (only-*ser*) adjective such as *famoso* 'famous' or a dual adjective such as *nervioso* 'nervous') will be considred an IL predicate, whereas any adjective that is compatible with *estar* (i.e. a SL (only-*estar*) adjective such as *contento* 'happy' or a dual adjective such as *nervioso* 'nervous') will be considered a SL predicate. The only difference to mention is that dual adjectives in turn take into account the discursive-information. Hence, I distinguish between IL contexts that ascribe a property to the individual as such from SL contexts that attribute a property in relation to a particular circumstance.

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Having provided a thorough classification of those adjectives that can appear as part of copular clauses and having analysed how English captures the IL/SL distinction (Carlson, 1977), I will now critically review the most influential accounts on *ser* and *estar*.

2.8 Accounts on *ser* and *estar*

In this section I will concentrate on the most prominent proposals regarding the Spanish copulas within the Generative Framework (Chomsky, 1957; 1995) that we adopt for this research study. The vast majority of accounts share the intuition that *ser* is less complex than *estar*. Indeed, *ser* is typically described in the literature (Fernández Leborans, 1999 and the reference therein) as if it were a semantically vacuous or inert copula that only carries morphological and tense information. This makes *ser* the counterpart of English *be* or French *être* (Lema, 1995, p.258), whereas *estar* is considered the 'specialized copula' that carries an extra structural element (Luján, 1980; 1981; Clements, 1988; 2006; Schmitt, 1992; 2005; Uriagereka, 2009; 2016; Zagona, 2010; Brucart, 2010; Arche, 2012; Camacho, 2012; Arche *et al*, to appear) or encodes aspectual content that enables it to function as a pseudo-copula (Navas Ruiz, 1977; Fernández Leborans and Sánchez López, 2015) or as an aspectual auxiliary (Lema, 1995).

On the basis of this analysis, if *ser* is structurally lighter than *estar, ser* projects a syntactic configuration that consists of fewer structural elements, consequently enabling it to combine with more categorical predicates than *estar*, which, as we shall see, *is* the case. *Ser* is the only copula that appears with nominal predicates ((1) repeated here as (152)), clauses introduced by a complementizer (153) and pseudo-clefts (154). In these constructions *ser* predicates a property that classifies the individual as one of a particular group. This is exemplified in copular clauses (152)–(154) where María is classified among the set of people that are qualified as linguists. Let us note here that we exclude from our discussion other types of copular clauses such as identificational and

specificational clauses (cf. Fernández Leborans, 1999) since they establish a different semantic and discourse relation between the subject and the predicate[12].

(152) *María **es/*está** lingüista.*
María **be**SER/ESTAR-PRESENT- 3SG linguist.
'María is a linguist.'

(153) ***Es/*está** que María es lingüista.*
BeSER/ESTAR-PRES-3SG that María beSER-PRESENT-3SG linguist.
'That is because María is a linguist.'

(154) *Lo que María **es/*está** es lingüista.*
What María **be**SER/ESTAR-PRESENT-3SG beSER-PRESENT-3SG linguist.
'What María is is a linguist.'

It is worth noting that although there is a wide consensus on the idea that *estar* has a more complex structure than *ser,* authors (Luján, 1981; Clements, 1988; 2006; Schmitt, 1992; 2005; Fernández Leborans, 1995a; 1999; Escandell Vidal and Leonetti, 2002; Arche, 2006; Gallego and Uriagereka, 2009; 2016; Zagona, 2010; Brucart, 2010; Arche, 2012; Fernández Leborans and Sánchez López, 2015; Romeu, 2015 and Arche *et al.*, to appear, among many others) differ on the proposed nature of the structural element that *estar* carries. Specifically, here I will distinguish between aspectual accounts (Luján, 1981; Schmitt, 1992; 2005; Fernández Leborans, 1995; 1999; Roby, 2009; Camacho, 2012), discourse-based accounts (Clements, 1988, 2006; Maienborn, 2005) and lexico-syntactic accounts (Gallego and Uriagereka, 2009; 2016; Brucart, 2010; Arche, 2012 and Arche *et al.*, to appear).

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[12] Following Fernández Leborans (1999, p.2369), two types of identificational clauses can be distinguished: the identificational clauses *per se* where the referential expression precedes the non-referential or descriptive expression (1) and specificational clauses that have the inverse order, that is, the non-referential expression precedes the referential expression (2).

  (1) *Sara **es/*está** la presidenta.*
    Sara **be**SER/ESTAR-PRESENT- 3SG the president.
    'Sara is the president .

  (2) *La presidenta **es/*está** Sara.*
    The president **be**SER/ESTAR-PRESENT- 3SG Sara.
    'The president is Sara.

2.8.1 *Ser* and *estar* as an aspectual distinction

Aspectual-based accounts vary with respect to the aspectual feature that *estar* carries in its configuration (e.g. [+PERFECTIVE], [+ASPECT], v+P[STATE], [+INCH]). As we will see next, authors (Luján, 1981; Schmitt, 1992; 2005; Fernández Leborans, 1995a; 1999; Roby, 2009; Camacho, 2012) do not clearly spell out whether this extra feature is placed at the level of Inner Aspect, Outer Aspect or Tense, which leads to a certain degree of confusion. Similarly, authors are at odds with respect to the temporal interpretations associated with *estar*. Some authors (Luján, 1980; 1981; Schmitt, 1992; 2005; Marín, 2000; 2004 and 2010) argue that *estar* gives rise to an interpretation between boundaries, while others claim that *estar* either signals the inception of a state (Camacho, 2012) or the end of one (Fernández Leborans, 1995a).

2.8.1.1 Copular distinction based on inner-aspect properties of the copulas

Luján (1980; 1981) ascribes a different lexical feature composition to *ser* and *estar* that gives rise to contrasting temporal interpretations. As Figure 2.4 illustrates, *estar* differs from *ser* in carrying a [+PERFECTIVE] feature that yields an interpretation of the adjective where the beginning and the end are assumed (as perfective states are temporally limited) (156). Conversely, as *ser* carries a [–PERFECTIVE] feature, temporal limits do not apply (indicating imperfective states) (155). Along similar lines, Roby (2009) claims that the Spanish copulas function as aspectual morphemes that carry the [±PERFECTIVE] distinction. Hence, while *estar* refers to states that 'cease to hold' (2009, p.120) as in (156), *ser* refers to states that hold over time, as exemplified in (155).

ser	*estar*
[+V]	[+V]
[+ COP]	[+ COP]
[-PERFECTIVE]	[+PERFECTIVE]

Figure 2.4: Copular characterization according to Luján (1980; 1981)

(155) *María **es/*está bilingüe**.*
    María **be**$_{\text{SER/ESTAR-PRESENT- 3SG}}$ bilingual.
    'María is bilingual.'

(156) *María ***es/está borracha**.*
    María **be**$_{\text{SER/ESTAR-PRESENT- 3SG}}$ drunk.
    'María is drunk.'

       Another author who assumes that *ser* has a less complex structure than *estar* is Schmitt (1992; 2005) (see Figure 2.5). In her proposal on Portuguese copulas (which are believed to be the counterparts of those in Spanish), Schmitt posits that *ser* is only a transparent verbalizer (or pure *v*) that exclusively carries verbal information, whereas *estar* is specified for Aspect and therefore has an inherent temporal structure. She represents *estar* as a cluster of features of *v* + P[STATE] (2005, p.131), where P stands for the aspectual values of a state type of subevent (2005, p.136), and is consequently temporally limited. Accordingly, *estar* is only able to appear with predicates that are aspectually specified in order to give rise to temporally delimited interpretations (temporal states) (1992, p. 424; 2005, p.136), as illustrated in (157). This greater level of aspectual specification leads to a more restrictive syntactic distribution of *estar*; in other words, that *estar* is only compatible with predicates that have stative subevents, whereas *ser* is more flexible, thus enabling its compatibility with more predicate types than *estar*. Recall that *ser* is privative of nominal predicates, clauses introduced by a complementizer and pseudo-clefts (as we saw previously in (152)–(154)).

ser	*estar*
v	*v* + P[STATE]

Figure 2.5: Syntactic configuration of *ser* and *estar* (based on Schmitt, 2005)

(157) *Juan **estaba solo** de pequeño.*
    Juan **be**$_{\text{SER-IMPERFECT- 3SG}}$ **alone** when-he-was-little.
    'Juan was alone when he was little.'

However, as pointed out by Arche (2006; 2012), the major drawback in Luján's and Schmitt's aspectual proposal resides in the fact that these authors blend notions from Inner Aspect (also called Lexical or Situational Aspect), Outer Aspect (also called Grammatical or Viewpoint Aspect) and Tense. Briefly explained, Inner Aspect addresses how situations unfold in time (e.g. whether there is an entailed culmination point or not) (Vendler 1957; 1967), Outer Aspect establishes the number of occasions an eventuality occurs and orders the Event Time (ET) with respect to the Assertion or Topic Time (TT). This ordering relationship gives rise to interpretations of the eventuality as habitual, progressive or perfective (i.e. to say whether the eventuality is seen as completed) (see Arche 2006; 2013). Finally, tense orders the TT with respect to the Utterance Time (UT) (i.e. present, past or future).

With regards to Inner Aspect, both copular clauses with *ser* and *estar* describe states. These are situations that hold in time and are characterized by three main distinctions with respect to events (following Vendler's aspectual classification 1957; 1967). States are static, atelic and durative (see Figure 2.6).

		Dynamic	**Telic**	**Durative**
States	*to be, to love, to know*	–	–	+
Activities	*to swim, to speak, to live*	+	–	+
Achievements	*to discover, to die, to recognise*	+	+	–
Accomplishments	*to run a marathon, to build a house, to write a thesis*	+	+	+

Figure 2.6: Vendler's aspectual classification of eventualities (1957; 1967)

To better illustrate states, observe that *ser extranjero* 'to be$_{SER}$ foreign' and *estar contento* 'to be$_{ESTAR}$ happy' differ sharply from events such as activities (e.g., *nadar* 'to swim'), achievements (e.g. *morir* 'to die') and accomplishments (e.g., *correr un maratón* 'to run a marathon') in that only the latter three are dynamic (i.e., they imply a

forward movement), and can consequently appear in the progressive form, as shown in (158)–(162). Let us note that *estar* is the auxiliary verb to form the Progressive in Spanish.

Progressive form

(158) **Daniel **está siendo extranjero**.*
   Laura be$_{\text{ESTAR-PRESENT-3SG}}$ being$_{\text{SER}}$ foreign.
   'Laura is being foreign.'

(159) **Daniel **está siendo contento**.*
   Daniel be$_{\text{ESTAR-PRESENT-3SG}}$ being$_{\text{ESTAR}}$ happy.
   'Daniel is being happy.'

(160) *Laura **está nadando**.*
   Laura be$_{\text{ESTAR-PRESENT-3SG}}$ swimming.
   'Laura is swimming.'

(161) *Laura **está muriéndose**.*
   Laura be$_{\text{ESTAR-PRESENT-3SG}}$ dying.
   'Laura is dying.'

(162) *Laura **está corriendo un maratón**.*
   Laura be$_{\text{ESTAR-PRESENT-3SG}}$ running a marathon.
   'Laura is running a marathon.'

Moreover, the states *ser extranjero* 'to be$_{\text{SER}}$ foreign' and *estar contento* 'to be$_{\text{ESTAR}}$ happy' are atelic because they lack a natural finishing point (or a *telos*, meaning 'goal, completion' in Greek). As a matter of fact, states and activities (e.g. *nadar* 'to swim') separate from accomplishments and achievements precisely in that only the latter involve a terminus. Therefore, the event is not reached until a cardiac arrest happens (166) or Laura crosses the finishing line in a marathon (167). As pointed out by Vendler (1957), only telic events provide natural answers to the questions *how long does it take Laura to run a marathon?* (e.g. two hours) and *at what moment does Laura die?* (e.g. at 1:12:19 of the film). Likewise, while we can say that *Daniel nadó* 'Daniel swam' after swimming, *Daniel fue extranjero* 'Daniel was$_{\text{SER}}$ foreign' after being naturalised or *Daniel estuvo contento* 'Daniel was$_{\text{ESTAR}}$ happy' after his friend's visit, the same does not hold for telic events. It would be untrue to claim that Laura ran a marathon or had

died if she stopped running or dying at any point. The test commonly used to identify telicity is the insertion of the adverbial modifier *en* 'in' + time.

En + time

(163) **Daniel **es extranjero** en dos horas.*
Daniel **be**ᴄₑᵣ₋ᴘᵣₑₛₑₙₜ₋₃ₛ₉ **foreign** in two hours.
'Daniel is foreign in two hours.'

(164) **Daniel **está contento** en dos horas.*
Daniel **be**ₑₛₜₐᵣ₋ᴘᵣₑₛₑₙₜ₋₃ₛ₉ **happy** in two hours.
'Daniel is happy in two hours.'

(165) **Laura **nada** en dos horas.*
Laura **swim**ᴘᵣₑₛₑₙₜ₋₃ₛ₉ in two hours.
'Laura swims in two hours.'

(166) *Laura **se muere** en dos horas.*
Laura **die**ᴘᵣₑₛₑₙₜ₋₃ₛ₉ in two hours.
'Laura dies in two hours.'

(167) *Laura **corre un maratón** en dos horas.*
Laura **runs**ᴘᵣₑₛₑₙₜ₋₃ₛ₉ **a marathon** in two hours.
'Laura runs a marathon in two hours.'

Additionally, only states and activities are durative, which amounts to saying that they occupy a period of time. Temporal duration is generally tested by the insertion of the adverbial *durante* + time (see (168)–(172)). Interestingly, they hold in time in a homogeneous manner (or homoemerous manner, as pointed out by Arche 2006, p.70). Following Vendler (1957), any part of a state or an activity is composed of the same nature as the whole. Hence, if Daniel is a Spaniard that has crossed the border to Portugal for an hour, we can say that every minute of his stay abroad is the same as the whole (168). Similarly, if Daniel was happy for an hour, every substrecht is composed of the same happiness as the whole (169). By contrast, running a marathon or dying has a heterogenous nature since it involves intervals of running and a culminating point.

Durante + time

(168) *Daniel **fue** extranjero durante una hora.*
Daniel **be**_{SER-PRETERITE-3SG} **foreign** for an hour.
'Daniel was foreign for an hour.'

(169) *Daniel **estuvo** contento durante una hora.*
Daniel **be**_{ESTAR-PRETERITE-3SG} **happy** for an hour.
'Daniel was happy for an hour.'

(170) *Laura **nadó** durante una hora.*
Laura **swim**_{PRETERITE-3SG} for an hour.
'Laura swam for an hour.'

(171) **Laura **se muere** durante una hora.*
Laura **die**_{PRESENT-3SG} for an hour.
'Laura dies for an hour.'

(172) **Laura **corrió un maratón** durante una hora.*
Laura **run**_{PRETERITE-3SG} **a marathon** for an hour.
'Laura ran a marathon for an hour.'

As explained above, clauses with *ser* and *estar* behave like any other state (e.g. *to love*) (see Figure 2.7). This leads me to disagree with Marín's proposal (2000; 2004; 2010) where *ser* and *estar* are characterised as if they denote unbounded states and bounded states respectively. Therefore, those adjectives that combine with *ser* are understood 'without bounds', whereas those that go with *estar* are interpreted as bounded states. Likewise, I am at odds with Camacho (2012) who argues that *estar* bears a [+INCH] feature that marks the beginning of a state, as well as with Fernández Leborans (1995a) who attributes inner-properties only to *estar,* claiming that only *estar* denotes 'a temporally achieved state' (1995, p.269).

		Dynamic	**Telic**	**Durative**
ser 'to be_SER'	*ser bilingüe* 'to be_SER bilingual'	–	–	+
	ser viejo 'to be_SER old'	–	–	+
estar 'to be_ESTAR'	*estar contenta* 'to be_ESTAR happy'	–	–	+
	estar vieja 'to be_ESTAR old'	–	–	+
amar 'to love', *saber* 'to know'		–	–	+

Figure 2.7: Comparison between the states *ser, estar* and *amar* 'to love'.

Before ending this section, I would like to elaborate on the fact that although Schmitt (1992; 2005) claims that *ser* is an atemporal BE (2005, p.137) because it is deprived of Aspect, it is precisely its underspecified syntactic configuration that allows it to function as 'a polysemous verb' (2005, p.132). By and large, *ser* is capable of taking onboard the aspectual properties of the predicates it combines with via a co-composition process. As such, if *ser* appears with a state predicate (e.g. *alérgico* 'allergic'), it gives rise to a state reading (173). Alternatively if *ser* is followed by a dual dependent-stage adjective of disposition (e.g. *amable* 'kind') it yields an eventive reading (ACT BE reading). For the latter case, Schmitt (2005, p.133) points out that *ser* is able to adopt the aspectual properties of the adjectival predicate as long as an overt aspectual operator is present (i.e. in the presence of an adverbial complement or in Progressive and Perfective forms). To illustrate, in (174) we obtain an ACT reading with the insertion of the adverbial complement 'with the customers'. Observe that, in this way, *ser* acquires an internal temporal structure where the property of 'being kind' is circumscribed to the subject only in the presence of customers. Juan acts in a kind manner in that particular circumstance.

(173) *Juan **es alérgico**.*
　　 Juan **be**_{SER-PRESENT- 3SG} **allergic**.
　　 'Juan is allergic (type of person).'

(174) *Juan **es amable** (con los clientes).*
　　 Juan **be**_{SER-PRESENT- 3SG} **kind** with the customers.
　　 'Juan is kind (with the customers).'

According to Schmitt (idem), this explanation accounts for the grammaticality of *ser* in typically SL constructions such as *whenever*-clauses (Kratzer, 1995). As Schmitt (1992) herself noted, although *whenever*-clauses tend to select SL predicates (e.g. *contenta* 'happy') as shown in (175), they are occasionally grammatical with *ser* (176) in combination with adjectives that have 'control over the predicate' (Schmitt, 1992, p.424) (e.g. *amable* 'kind') (in here these adjectives are referred to as dual dependent-stage adjectives of disposition). Observe that, in a similar manner, the properties of 'being happy' and 'being kind' are singled out and distributed over a repeated number of occasions, but the same operation fails with IL (only-*ser*) adjectives (as it occurs with *famosa* 'famous' in (177)).

(175) *Siempre que María **está contenta**, sonríe.*
　　 When(ever) María **be**_{ESTAR-PRESENT-3SG} **happy**, she smiles.
　　 'When(ever) María is happy, she smiles.

(176) *Siempre que María **es amable**, lo es de verdad.*
　　 When(ever) María **be**_{SER-PRESENT-3SG} **kind**, she is really kind.
　　 'Whenever María is kind, she is really kind.'

(177) **Siempre que María **es famosa**, viaja por todo el mundo.*
　　 When(ever) María **be**_{SER-PRESENT-3SG} **famous**, she travels around the world.
　　 'Whenever María is famous, she travels around the world.'

Nevertheless, even adjectives that fail agency tests are grammatical in typically SL constructions, as long as a broader context is created. To exemplify, Arche (2006) points out that IL (only-*ser*) adjectives can be part of *whenever*-clauses provided that the context reflects a property that holds of the individual (example adapted from Arche, 2006, p.30) (178).

(178) *(En todos sus sueños), siempre que María **es famosa**, viaja por todo el mundo.*
In all her dreams, when(ever) María **be**_{SER-PRESENT-3SG} **famous**, she travels around the world.
'(In all her dreams,) whenever María is famous, she travels around the world.'

In a similar vein, as Pérez Jiménez (2006) shows, even dual dependent-stage adjectives of physical appearance (e.g. *alto* 'tall') can also appear in absolute clauses if they place the individual in a class comparison or in a degree scale, as shown in (179) and (180) respectively (examples taken from Pérez Jiménez, 2006, p.264).

(179) ***Alto** para **ser** un jockey, Juan era rechazado a menudo.*
Tall to **be**_{SER-INFINITIVE} a jockey, Juan was rejected often.
'Tall for a jockey, Juan was often rejected.

(180) *Desagradablemente **alto**/**Alto** como una jirafa, Juan era rechazado a menudo.*
Disagreeably **tall**/**tall** as a giraffe, Juan was rejected often.
'Disagreeably tall/tall for a giraffe, Juan was often rejected.'

Along the lines of Schmitt (1992; 2005), Fernández Leborans (1995; 1999; 2007) characterizes *ser* as an aspectually inert copula, and *estar* as a copula that is specified for Aspect. Her claim is based on the fact that when a *ser* clause casts a subject into a category, it does so independently of time. Conversely, *estar* requires time to envisage the relation between the subject in a particular spatio-temporal circumstance. Again we see how *estar* seems to have an internal temporal structure that *ser* is deprived of. Consequently, to explain the grammaticality of *ser* in certain constructions with temporal limitations (181) (example taken from Fernández Leborans, 2007, p.386) this author (2007) argues that an aspectual recategorisation process takes place. *Ser* clauses are, by default, states (i.e. atelic, durative and non-dynamic) because they predicate characteristics of the subject regarding 'what he is like' (2007, p.387). However, when *ser* appears in eventive contexts (such as in the constructions with temporal adverbs) the state is aspectually recategorised into an activity. Here the property is no longer interpreted as a property of the individual himself, but as a temporal-spatial stage with

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an occasional scope (2007, p.391). Concretely, *ser* receives the aspectual specification of an activity since it describes a type of behaviour. Note that in this sense, an IL predicate in an eventive context can be recategorised as an SL predicate, but the inverse recategorisation process of SL predicates into IL predicates, as Leborans points out, is not allowed (see figure 2.8).

(181) *Pepe **es amable** desde hace un tiempo.*
Pepe **be**_{SER-PRESENT- 3SG} **kind** for a while now.
'Pepe (has) been kind for a while now'.

IL predicates	→	SL predicates
SL predicates	≠	IL predicates

Figure 2.8: Recategorisation of predicates according to Fernández Leborans (2007)

Similarly, other authors have claimed that *estar* signals the inception or end of a state. On the one hand, Fernández Leborans (1995a) argues that *estar* predicates correspond to achieved states. To illustrate, (182) equates to an achieved state after the process of undressing, but differs from Bosque (1990) in that *estar* does not necessarily yield a resultative reading (1995, p.271). On the other hand, Camacho (2012) argues the opposite, since he attributes an inchoative value to *estar* that marks the beginning of the state. That is, Ana is naked from now onwards. Nevertheless, as Arche (2012) points out, there are assumed properties that are linked to the discourse-contextual information that lead us to incorrect conclusions. Observe that if we change the subject from a human being to an animal, it would be difficult to foresee a preceding process of undressing or that the state of being naked has just begun.

(182) *Ana **está desnuda**.*
Ana **be**_{ESTAR-PRESENT- 3SG} **naked**.
'Ana is naked'.

(183) *El elefante **está desnudo**.*
The elephant **be**_{ESTAR-PRESENT- 3SG} **naked**.
'The elephant is naked.'

As illustrated, the drawbacks of these aspectual accounts lie in the fact that both copulas are states and are therefore homogeneous predicates that do not impose any sort of boundaries (see Arche, 2006; 2012). As a result, these aspectual accounts fail to explain examples where *estar* does not necessarily imply a starting or end point. Observe that (184) does not yield a reading in which Sofía is alone as an achieved state after a process of having socialized (as Fernández Leborans' account would predict), nor does it indicate that she is alone from now onwards (following Camacho, 2012). Similarly, these aspectual accounts cannot account for cases in which *ser* is compatible with adjectives that denote a beginning (185) e.g. Sofía can be considered guilty after she committed an offence or once a jury declares her guilty.

(184) *Sofía **está sola**.*
    Sofía be_{ESTAR-PRESENT- 3SG} **alone**.
    'Sofía is alone.'

(185) *Sofía **es culpable**.*
    Sofía be_{SER-PRESENT- 3SG} **guilty**.
    'Sofía is guilty.

Putting together all aspectual accounts (Luján, 1980; 1981; Schmitt, 1992; 2005; Fernández Leborans, 1995a; 2007 and Camacho, 2012), these all concur on the notion that *ser* is aspectually empty and that it obtains temporal structure under the condition that the predicate that follows is aspectually specified, for example, if the predicate contains a dual adjective of disposition (e.g. *amable* 'kind') or in certain aspectual constructions (e.g. with adverbial complements). However, this begs the question: if the copular alternation rests on an aspectual distinction, how is it possible that the so-called 'atemporal' copula *ser,* in combination with stative adjectives that lack an agentive subject (e.g. IL (only-*ser*) adjectives such as *alérgico* 'allergic' or *famoso* 'famous'), are also able to be temporally, or even spatially, limited (compare (186) and (187))? Furthermore, how is it possible that the 'atemporal copula' *ser* is involved in constructions that indicate that the property has ceased (186)–(189)?

(186) *Juan **fue/era alérgico** de pequeño.*
     Juan be_{SER-PRETERITE/IMPERFECT- 3SG} **allergic** when-he-was-little.
     'Juan was allergic when he was little.'

(187) *Juan **fue/era famoso** en la universidad.*
     Juan be_{SER-PRETERITE/IMPERFECT- 3SG} **famous** in the university.
     'Juan was famous at the university.'

(188) *Juan dejó de **ser/*estar alérgico/famoso**.*
     Juan stopped be_{SER/ESTAR-INFINITIVE} **allergic/famous**.
     'Juan stopped being allergic/famous.'

(189) *Juan **fue/*estuvo alérgico/famoso** hasta hace algunos años.*
     Juan be_{SER/ESTAR-PRETERITE-3SG} **allergic/famous** up until ago few years.
     'Juan was allergic/famous up until a few years ago.'

Now that we have seen that both copular verbs do not differ with respect to their inner-properties (as both are states), let us now address whether the difference lies at the level of Outer Aspect, as some aspectual-based accounts have proposed.

2.8.1.2 Copular distinction based on outer-aspect properties of the copulas

Luján (1980; 1981) builds on Querido (1976) to assert that the Spanish copular verbs are partially synonymous; specifically discussing that *estar* is a hyponym of *ser*. As a result, a *ser* clause implies an *estar* clause but not vice versa. Her claim rests on the fact that certain adjectives[13] that generally combine with *ser* (e.g. *amable* 'kind') are compatible with *estar,* provided the appropriate context holds, whereas, SL (only-*estar*) adjectives (e.g. *contento* 'happy') are not grammatical with *ser* under any circumstance. This observation leads her to determine that SL (only-*estar*) adjectives represent 'an inclusive class' (Luján, 1981, pp. 172–173). However, as observed above (see section 2.4), there is another group of adjectives (i.e. IL (only-*ser*) adjectives like *famoso* 'famous') that are also ungrammatical with *estar*.

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[13] The group of adjectives that Luján (1981, p.172) includes as *ser*-adjectives are a mixture between evaluative dual adjectives (e.g. *cauto* 'cautious', *cortés* 'polite', *constante* 'constant', *discreto* 'discreet', *justo* 'just', *leal* 'loyal', *prudente* 'prudent') and IL (only-*ser*) adjectives (*capaz* 'capable', *mortal* 'mortal'). Only the former are compatible with *estar*.

Indeed, if we look more closely, this partial synonymy does not seem to hold among dual adjectives either. Following Luján (1980; 1981), *estar guapa* 'be_{ESTAR} pretty' does not meet the requirements of *ser guapa* 'be_{SER} pretty' (190) (example adapted from 1981, p.173) and consequently, the proposition is false. Instead the inverse implication is true for Luján because *ser guapa* 'be_{SER} pretty' implies *estar guapa* 'be_{ESTAR} pretty' (191) (example adapted from 1981, p.173). That is, Carmen is able to look pretty because she is a pretty person. However, this is not a necessary condition for *estar*. Carmen may look prettier on a particular occasion and not even be considered pretty overall, as (192) portrays. Here I have evidenced that the copulas are not synonymous and indeed, give rise to independent readings.

(190) *Carmen **es guapa** porque **está guapa**.* (False)
Carmen **be_{SER-PRESENT-3SG} pretty** because she **be_{ESTAR-PRESENT-3SG} pretty**.
'Carmen is pretty because she is (looks) pretty.'

(191) *Carmen **está guapa** porque **es guapa**.* (True)
Carmen **be_{ESTAR-PRESENT-3SG} pretty** because she **be_{SER-PRESENT-3SG} pretty**.
'Carmen is (looks) pretty because she is pretty.'

(192) *Carmen **está guapa** aunque no **es guapa**.* (True)
Carmen **be_{ESTAR-PRESENT-3SG} pretty** although she **be_{SER-PRESENT-3SG}** not **pretty**.
'Carmen is (looks) pretty although she is not pretty.'

This line of reasoning leads Luján to claim that the partial synonymy is not only confined to the Spanish copulas but also present at the level of Outer Aspect. To illustrate, the author bases her argument on the two temporal interpretations associated to the Imperfect tense (194): a progressive reading, where the event is seen as on-going during a past situation (e.g. Carlos was singing when I entered the house) as well as a habitual reading, that refers to an event that occurred recurrently in the past (e.g. Carlos used to sing in the school). The Preterite, however, yields a different viewpoint (Perfective) where the event is conceived as completed. On this basis, Luján (1980; 1981) argues that the Imperfect tense implies the Preterite since, if Carlos was singing when I entered the house or he used to sing in the past, he necessarily sang on at least one occasion, whereas the reverse order does not hold.

(193) *Carlos **cantó**.*
     Carlos **sing**PRETERITE- 3SG
     'Carlos sang.'

(194) *Carlos **cantaba**.*
     Carlos **sing**IMPERFECT- 3SG
     'Carlos sang (was singing or used to sing).'

Drawing a parallelism, Luján (1980; 1981) claims that the Spanish copulas yield the same semantic difference as the Preterite and Imperfect past tenses. Therefore, *ser* patterns with the Imperfect tense in the sense that the temporal interpretation is understood without limits (compare (193) and (194)), while *estar* patterns with the Preterite tense since, in both cases, they give rise to an interpretation that is temporally limited (see Figure 2.9).

ser	*estar*
[-PERFECTIVE]	[+PERFECTIVE]
↓	↓
Imperfect Tense	Preterite Tense

Figure 2.9: Comparison between copulas and past simple tenses in Spanish (Luján, 1980; 1981)

What is interesting for us here is that Luján (1980; 1981) claims that adjectives that typically appear with *ser* are compatible with *estar* as long as the appropriate 'context' is supplied. As I understand her proposal, *estar,* as the 'perfective copula', is capable of appearing in constructions where limits are known. As a result, she claims that the insertion of *estar* in the Preterite tense is rendered grammatical since, as the situation is seen as completed, it appears within limits (see (197) and (199)). However, if Luján were correct, *estar* in the Imperfect tense and, by extension, *ser* in the Preterite tense, would yield ungrammatical results. Nonetheless, as Arche (2006; 2012) points out, this is not the case since both copulas can adopt the two aspectual viewpoints (perfective and imperfect) regardless as to whether the adjective is only compatible with

one copular verb (IL (only-*ser*) adjectives (195)–(196) and SL (only-*estar*) adjectives (197)–(198)) or with both (compare dual adjectives (199)–(200)).

(195) *Carlos <u>fue/*estuvo</u> famoso.*
Carlos be_{SER/ESTAR-PRETERITE- 3SG} **famous**.
'Carlos was famous.'

(196) *Carlos <u>era/*estaba</u> famoso.*
Carlos be_{SER/ESTAR-IMPERFECT- 3SG} **famous**.
'Carlos was famous.'

(197) *Carlos <u>*fue/estuvo</u> solo.*
Carlos be_{SER/ESTAR-PRETERITE- 3SG} **alone**.
'Carlos was alone.'

(198) *Carlos <u>*era/estaba</u> solo.*
Carlos be_{SER/ESTAR-IMPERFECT- 3SG} **alone**.
'Carlos was alone.'

(199) *Carlos <u>fue/estuvo</u> amable.*
Carlos be_{SER/ESTAR-PRETERITE- 3SG} **kind**.
'Carlos was kind.'

(200) *Carlos <u>era/estaba</u> amable.*
Carlos be_{SER/ESTAR-IMPERFECT- 3SG} **kind**.
'Carlos was kind.'

The possibility of both copular verbs taking different aspectual viewpoints (i.e. perfective and imperfect) can be neatly explained following Arche's proposal (2006; 2013) where Aspect and Tense are seen as interval-ordering predicates (along the lines of Klein, 1994; Demirdache and Uribe-Etxebarría, 2000). Fundamentally, Outer Aspect orders the Event Time (ET) (e.g. the state of being kind, famous or alone) with respect to the time the speaker is talking about (called Topic Time (TT)). Therefore, if the speaker utters any sentence of (195)–(200), he refers to a specific time that he has in mind, and, at that time, Carlos was famous, alone or kind (TT) (see (201), tree taken from Arche 2006, p.155).

(201)   TP
```
        TP
       /  \
      RT   T´
          /  \
         T   AspP
            /   \
           TT   AspP´
               /   \
              Asp   VP
                   /  \
                  ET   VP
                      /  \
                   state  VP
```
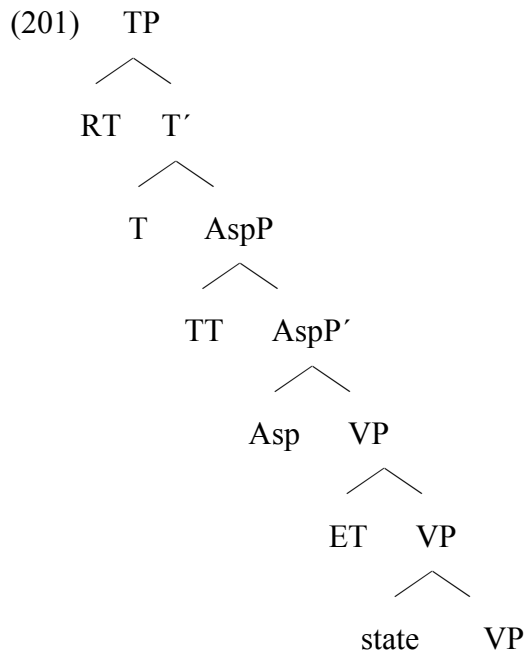
As a result, the states of being famous, alone or kind are seen as completed in the perfective (see (195), (197) and (199)), while in the imperfective the event time coincides within the topic time and therefore, is not seen as a whole (see (196), (198) and (200)).

Summarising thus far, aspectual accounts coincide in the sense that *estar* is more complex than *ser* because only the former is aspectually specified. However, we have seen that the copular alternation cannot rest on an aspectual distinction solely, as both copular verbs share the same inner and outer aspect properties since they are states and, are in turn, subject to be temporally restricted at the levels of Outer Aspect and Tense. Additionally, the partial synonymy assigned to the Spanish copulas by Luján (1980; 1981) can be rejected. That is, that *ser* is sufficient to qualify for a clause with *estar* but not vice versa. As reviewed in this section, no entailment relation seems to hold between the Spanish copulas, since they give rise to independent readings. Next, I will investigate whether the copular contrast can be explained according to the discursive properties of the copulas.

2.8.2 *Ser* and *estar* as a discourse-based distinction

Discourse-based accounts address the copular dichotomy by analysing whether the semantics of *ser* and *estar* are affected by the discourse. By and large, Clements (1988; 2006) and Maienborn (2005) postulated that only *estar* brings about an interpretation that takes into account the discourse-pragmatic information. Specifically, Clements (1988) argues that only *estar* carries a semantic [+NEXUS] feature that presupposes a connection to another discourse situation. Building on these insights, the same author (2006) claims that as *estar* is aspectually marked (i.e. that it has a [+ASPECT] feature), it combines with adjectives that involve an underlying process (e.g. *viejo* 'old' is understood an ageing process). Likewise, Maienborn (2005) states that *ser* and *estar* do not differ with respect to their semantics (which equates both copulas as counterparts of English *be*) but they do with respect to their connection with the discourse. For this author, only *estar* carries a presuppositional component (of a topic situation s*) that links the interpretation of the adjectival predicate to a specific discourse situation.

In contrast to this view, I propose that both copulas are separately connected to the discourse, with each copula being felicitous in a different discursive context. Clauses with *ser* correspond to those contexts that classify the subject as the holder of certain property (i.e. IL contexts), while clauses with *estar* correspond to discursive contexts that bring about 'a circumstance in which the subject is' (Arche 2006, p.251) (i.e. SL contexts). To illustrate, consider for example the dual adjective of disposition *amable* 'kind' that with *ser* corresponds to a context in which Ana seems rather friendly in (202), whereas with *estar* this brings up a circumstance that explains that Ana has been kind lately, as suggested by Arche (p.c.) (203). In this regard, it is crucial to highlight that with *estar* the property is predicated in relation to a circumstance and this circumstance is always expected or assumed by the hearer although it may not be explicitly stated, since speakers generally tend to economise the amount of discursive information that is required in order for the hearer to understand the message.

(202) *Ana* <u>**es**</u> *amable*.
  Ana **be**_{SER-PRESENT- 3SG} **kind**.
  'Ana is kind.'

(203) *Ana* <u>**está**</u> *amable*.
  Ana **be**_{ESTAR-PRESENT- 3SG} **kind**.
  'Ana is kind (Ana has been kind lately).'

Finally, let us note here that, although *ser* has been typically defined as the copula that ascribes permanent properties and *estar* as the one that assigns transitory and accidental properties (Bello, 1847; Ramsey, 1894; Morley, 1925; Real Academia Española, 1973; Roldán, 1974; Asociación de Academias de la Lengua Española, 2010; among others), the time span of the circumstance associated to *estar* is subject to variation and is not necessary brief. Therefore, (203) may perfectly correlate with:

  i.   A short circumstance. For example, Ana has been kind today because she wanted to give a good impression to her new colleague.
  ii. A long circumstance. For instance, Ana has been kind lately towards her brother since he became seriously ill.

This contextual dependency is particularly interesting for adjectives that are compatible with both copulas since they let us illustrate more efficiently the semantic contrast that the copular alternation yields in Spanish through minimal pairs. Finally, I will turn my attention to those accounts that characterise *ser* and *estar* as differing with respect to their lexico-syntactic configuration.

2.8.3 *Ser* and *estar* as a lexico-syntactic distinction

In this section I deal in greater detail with syntactic accounts that claim that the internal structure of *estar* is more specified than that of *ser*. With more or less variation, Uriagereka and Gallego, (2009; 2016), Zagona (2010), Brucart (2010; 2012), Arche (2012) and Arche *et al*. (to appear) argue that the syntactic configuration projected by the Spanish copulas differs in that *estar* possesses an additional element that *ser* does

not. This extra element is believed to be prepositional in nature. It is not surprising that these authors associate the internal structure of *estar* with a prepositional head, since as we have mentioned earlier, *estar* brings about 'a circumstance in which an individual is in' (Arche 2006, p.251) and circumstances, similarly to prepositions, are related with spatial-temporal notions.

Gallego and Uriagereka's (2009; 2016) and Brucart's (2010; 2012) accounts on the one hand and Zagona's (2010) on the other, converge on two main points: firstly, that the internal structure of *estar* is composed by *v* plus a prepositional element; and secondly, that the internal structure of the copulas gives rise to an Aspectual distinction that translates into different temporal interpretations (transitory and non transitory); nevertheless, only Zagona (2010) argues to be similar to the perfective/imperfective distinction at the level of Outer Aspect. That is, *ser* gives rise to imperfective (non-transitory) states, whereas *estar* yields perfective (transitory) states.

In particular, Gallego and Uriagereka (2009; 2016) suggest that the internal structure of *estar* is more complex than that of *ser* as it consists of *ser* itself plus a preposition of terminal coincidence (compare (204)–(205) (2009, p.5)). Following Hale and Keyser (2002), prepositions project syntactic structures that indicate relations of central or terminal coincidence. A central coincidence relation is expressed by prepositions such as *with, in* or *at.* They establish a relation by which the FIGURE, syntactically occupying the specifier position, coincides with the GROUND (or reference-point) (Talmy, 1975) in the complement position. To illustrate, in (206) (example taken from Hale and Keyser, 2002, p.222) the baby coincides centrally with the location of the bed. Conversely, prepositions such as *into*, *onto, to* or *from* involve a more complex structure (note that they have an extra layer). They indicate that the FIGURE undergoes a change whose terminal point is denoted by the GROUND, like in (207) (example taken from Hale and Keyser 2002, p.222).

(204) [serP   *ser* [$_{SC}$ DP   [P+N]]]

(205) [estarP P_T + *ser* [$_{SC}$ DP [t_P [P+N]]]]

```
              P                                        P
             / \                                      / \
       FIGURE   P                              FIGURE   P
      the baby  / \                            the baby / \
              P   GROUND                              P   P
              in   bed                                to  / \
                                                        P   N
                                                        in  bed
```
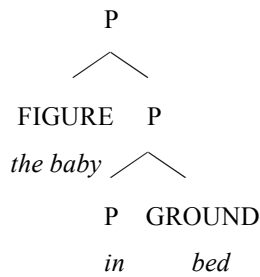
(206) With [the baby in bed], we can relax   (207) Getting [the baby into bed] is hard.
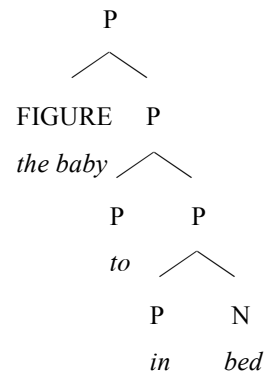
Moreover, Hale and Keyser (2002) argue that the central and terminal relations are a property of syntactic heads that account for stativity and change. Therefore, copulas denote a relation of central coincidence when they predicate properties (GROUND) that the subject (FIGURE) possesses (208) (example taken from Hale and Keyser 2002, p.220). By contrast, a terminal coincidence corresponds to 'active dynamic, and otherwise non-stative event types' (e.g. *become*) (Hale and Keyser 2002, p.218). As illustrated in (209) (example taken from Hale and Keyser 2002, p.220), the subject (Leecil) undergoes a change whose terminal point is expressed by the nominal predicate.

(208) *Leecil is a calf roper.*

(209) *Leecil became a calf roper.*

Building on this distinction of central and terminal coincidence, Gallego and Uriagereka (2009; 2016) posit that *ser* expresses a central coincidence relation, while *estar* denotes a relation of terminal coincidence. In particular, they argue that P_T is overtly spelled out via the preposition *de* 'from' as in (210) (example taken from Gallego and Uriagereka, 2009, p.3). Again, we see how *ser* involves a simpler structural relation than that of *estar* (equivalent to the one in (206) and (207) respectively). As a result, *estar* denotes a change or end point by which the subject has come to have the property expressed by the adjectival predicate.

(210) *Pedro *es/**está** de profesor.*
    Pedro **be**_{SER/ESTAR-PRESENT-3SG} from teacher.
    'Pedro is (working) as a teacher.'

On the basis of their internal structure, Gallego and Uriagereka (2009; 2016) claim that *ser* combines with adjectival predicates that have a more basic structure (monadic structure) than those selected by *estar* (dyadic structure). For these authors, while the monadic structure yields morphologically simple adjectives (e.g. *guapo* 'handsome'), the dyadic structure produces morphologically complex adjectives with the suffix *–do* typical of participial adjectives (e.g. *cansado* 'tired'). Note that only the adjectives that combine with *estar* have an extra layer that contains a *p* of a terminal coincidence nature that will be checked by the P_T that *estar* contains.

(211)   PP
        / \
       P   √R (e.g. *guapo* 'handsome')

         Monadic structure

(212)   *p*P
        / \
       p   PP
            / \
           P   √R (e.g. *cansado* 'tired')

         Dyadic structure
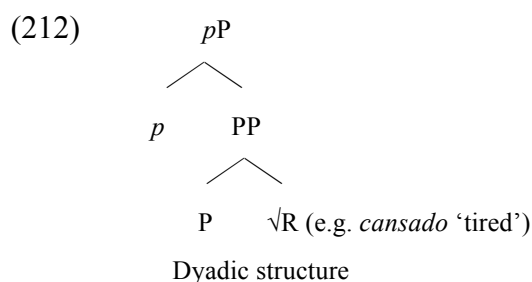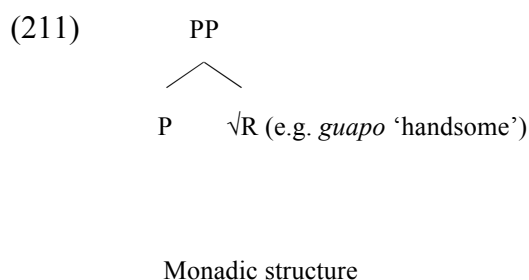
Although not explicitly stated, what seems to underlie Gallego and Uriagereka's proposal is the general assumption that *estar* is a pseudo-copula (Navas Ruiz, 1977; Fernández Leborans and Sánchez López, 2015) or an aspectual auxiliary verb (Lema, 1995) closer to the English *become* rather than to a copular verb as *be.* This explains that these authors put IL-hood on the same level as stativity, and SL-hood with perfectivity to account for non-temporal and temporal interpretations associated to *ser* and *estar*. However, as we have pointed out before following Arche (2006), perfectivity is a distinction at the level of Outer Aspect that does not affect the copular alternation, indeed, both copulas can adopt Perfective and Imperfective aspectual viewpoints.

Brucart (2010; 2012) also analyses the copular contrast in terms of a relation of coincidence. Departing from an analysis of locative copular clauses in Spanish and Catalan, Brucart argues that while *ser* is the unmarked copula (213), *estar* brings a content of terminal coincidence (214).

(213)   *ser*VP

             RP

       R_C SC

         DP   AP

(214)   *estar*VP

     $[iR_T]$ RP

       uR_T SC

         DP   AP
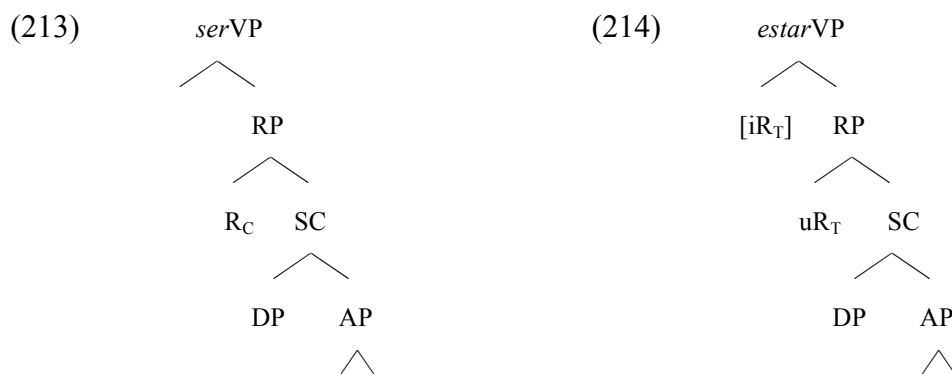
As far as I understand his proposal, *ser* emerges when the attributive relation in the Relator Phrase (RP) establishes a central coincidence relation (R_C), whereas *estar* merges at a higher layer. Observe that *estar* brings an extra element above the RP, in particular, an interpretable feature of terminal coincidence (iR_T) that marks a delimiting reading of the adjectival predicate. What should be underlined regarding this proposal is that the copular contrast is focused on the internal properties of the copulas themselves rather than the adjectival predicate.

In a similar proposal, Zagona (2010) argues that the internal structure of *estar* consists of a *v* and an uninterpretable feature (215) (2010, p.3) that sets limits on the complements it combines with. This feature only merges if the complement has a stative prepositional component[14] and clashes if the predicate contains a directional preposition

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[14] Her argument is based on the syntactic composition of prepositions and adjectives as categories that are formed by path+result combination, as proposed by Zubizarreta and Oh (2007). Zagona distinguishes between *stative prepositions* (e.g. *en* 'in') and *directional prepositions* (e.g. *a* 'to'). Her proposal accounts for the ungrammaticality of *estar* with directional prepositions (compare (1) and (2)).

(5)   **Juan **está** a casa.*
         Juan be**ESTAR-PRESENT- 3SG** to home.
         'Juan is to home'.
(6)   *Juan **está** en casa.*
         Juan be**ESTAR-PRESENT- 3SG** in home.
         'Juan is at home'.

(e.g. *a* 'to') (compare (216)–(217) (example taken from Zagona 2010, p.13)). As a result, she claims that *estar* is only compatible with adjectival predicates if they are specified for Aspect via a stative preposition element (P$_{ASP}$) (219), whereas *ser* combines with adjectival predicates that lack this prepositional component (218) (p. 17). Consequently, only *estar* clauses yield temporal stative readings.

(215) *estar*: [v [*u*P] …]

(216) *Juan *es/<u>está</u> en casa.*
    Juan **be**$_{SER/ESTAR\text{-}PRESENT\text{-}3SG}$ in house.
    'Juan is at home.'

(217) *Juan *es/*está a casa.*
    Juan **be**$_{SER/ESTAR\text{-}PRESENT\text{-}3SG}$ to house.
    'Juan is to home.'

(218) [P$_{ASP}$ AP] (selected by *estar*)

(219) [-- AP] (selected by *ser*)

To account for the grammaticality of *ser* with adjectives that do not necessarily denote permanent properties (e.g. *famoso* 'famous'), Zagona argues that these adjectives (as well as nominals) carry 'a path-like relation' (Zagona 2010, p.17) that clashes with *estar*, but not with *ser*. As a potential explanation for this, she proposes that the attribution relation established by *ser* involves a directional component when a speaker assigns a property to the subject. However, as both copulas equally attribute properties to the subject, it is difficult to disregard that *estar* itself does not entail a similar path relation with its complement.

Despite the fact that I agree on the general intuition that the internal structure of *estar* is more complex than the one of *ser,* I will now point out two disadvantages that I see in Gallego and Uriagereka's, Zagona's and Brucart's proposals. First to be addressed is their assumption that the internal VP structure of each copula translates into an aspectual distinction at the level of Outer Aspect, in as much that only *estar* brings rise to transitory interpretations. As evidenced earlier, this occurs because *estar*

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is associated to a given circumstance (Arche, 2006). However, as Arche (2012) points out, though circumstances are generally episodic this is not a necessary condition, since their timespan is variable. Secondly, as pointed out by Arche (2012), the prepositional element of terminal coincidence proposed by Gallego and Uriagereka (2009; 2016) and Brucart (2012) seems to be at odds with the syntactic distribution of *estar* in locative prepositional phrases. Recall that *estar* is derived from the Latin *stare*. According to Battlori and Roca (2011) *stare* was a full lexical verb that encoded at least two lexical values: a locative meaning in the sense of 'to stand, stand still, stand firm' (220) and a meaning equivalent to 'to remain or rest' (221) (examples taken from Batllori and Roca 2011, p.73).

Syntactic contexts occupied by *stare* in Latin

(220) ***Sto*** *ad ianuam.*

be**STARE-PRESENT-1SG** at door.

'I am in front to the door'.

(221) ***Pugna sterit***.

batte be**STARE-PRETERITE-3SG.**

'The battle continued'.

Although *estar* underwent a grammaticalization process from Latin to Romance through which it gradually lost its lexical meaning of physical location in order to become a functional element in Modern Spanish (Batllori and Roca, 2011; Marco and Marín, 2015), it is still the copula employed for the location of animate and inanimate subjects (compare (2)–(223)). It therefore seems more plausible that the prepositional element that *estar* carries is a preposition of central coincidence, as proposed by Arche (2012).

(222) *María* *es/**está** *en Greenwich.*

María be**SER/ESTAR-PRESENT- 3SG** in Greenwich.

'María is in Greenwich.'

(223) *El observatorio* *es/**está** *en Greenwich.*

The observatory be**SER/ESTAR-PRESENT- 3SG** in Greenwich.

'The observatory is in Greenwich.'

A prepositional element of central coincidence equivalent to the fully-fledged preposition *en* seems to fit nicely in the internal composition of *estar*. Indeed, as noted by Brucart (2012, p. 13), many locative complements underwent a lexicalization process and are now used as adjectival predicates (see (224)–(225)).

(224) *María* *es/**está** *en cama.*
    María **be**_{SER/ESTAR-PRESENT- 3SG} in bed.
    'María is in bed/bedridden (=sick).'

(225) *María* *es/**está** *en la luna.*
    María **be**_{SER/ESTAR-PRESENT- 3SG} in the moon.
    'María is in the moon (=absent-minded).'

The evidence mentioned thus far leads us to adopt the account of Arche *et al*. (to appear), regarding the syntactic characterization of *ser* and *estar* in combination with adjectival and passive clauses. Following Hale and Keyser (2002), Arche *et al*. (to appear) argue that *estar* differs from *ser* in that it carries an extra prepositional element of central coincidence that makes any sort of predicate it combines with stative. Tree diagrams (226) and (227) illustrate the syntactic composition of *ser* and *estar* according to Arche *et al*. (to appear).
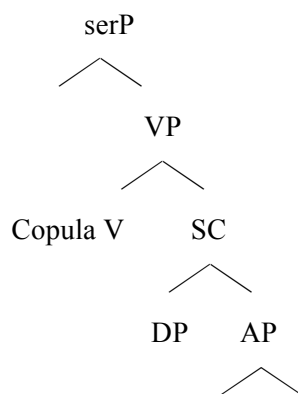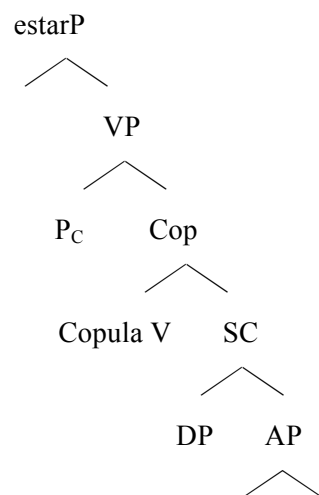
Since the combinations with *estar* are stative, their interpretation in the Present tense is as it is with all states, overlapping with the utterance time. Sentences (228)–(229) illustrate how the interpretation of *estar* in the present tense predicates the property in reference to the utterance time. Observe that only *estar* accepts the temporal adverbial modifier *en este momento* 'at this moment', as noticed by Arche *et al*. (to appear). In contrast, *ser* has more flexibility.

(228) *Pedro *es/__está__ solo en este momento.*
  Pedro **be**_{SER/ESTAR-PRESENT-3SG} alone in this moment.
  'Pedro is alone at this moment.'

(229) *Pedro *es/__está__ amable/nervioso/guapo en este momento.*
  Pedro **be**_{SER/ESTAR-PRESENT-3SG} kind in this moment.
  'Pedro is kind/anxious/handsome at this moment.'

For the present study we will not test the twofold interpretation of *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind'). In short, *ser* yields a stative reading and a habitual reading and both may be understood as an IL predicate (230) (i.e. Alicia possesses the property of kindness and therefore, she can be considered a kind person (230)) as well as a habitual reading (i.e. Alicia usually acts or behaves in a kind manner (231)) (see Arche, 2006; 2012 and Arche *et al*., to appear).

(230) *Alicia __es__ amable.*
  Alicia **be**_{SER-PRESENT-3SG} kind.
  'Alicia is kind.'

(231) *Alicia __es__ amable normalmente.*
  Alicia **be**_{SER-PRESENT-3SG} kind normally.
  'Alicia is normally kind.'

2.9 Summary of the Chapter

This chapter has presented a thorough characterization of the syntactic distribution of the Spanish copulas. I have identified which adjectives combine with one copula only

(i.e. IL (only-*ser*) adjectives such as *famoso* 'famous' and SL (only-*estar*) adjectives such as *contento* 'happy') and which adjectives are compatible with both (i.e. dual adjectives). The latter were in turn divided into three groups: dual dependent-stage of physical appearance (e.g. *viejo* 'old'), dual dependent-stage of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). The first two are characterized for yielding a SL reading in combination with *estar* and in predicative complements of the object, whereas dual self-standing stage adjectives give rise to stage readings in other typically SL constructions, such as absolute clauses and predicative complements of the subject and object.

As has been defended in the literature (Fernández Leborans 1999, Arche 2006, Marín 2010 and Fábregas 2012, Arche *et al.*, among others), I take *ser* and *estar* as the lexical exponents of the IL/SL distinction (Carlson, 1977). Any adjective that combines with *ser* will be treated as an IL predicate, whereas in combination with *estar,* it will be considered a SL predicate. Moreover, following Fernández Leborans (1999), Escandell Vidal and Leonetti (2002) and Marín (2010), to name a few, I have examined other syntactic enviroments that either yield an IL reading (i.e. small complements and the postnominal modification of the noun phrase) or a SL reading (i.e. absolute constructions and predicative complements). As I will develop in Chapter Four, these constructions will be relevant for the task design of dual adjectives.

Because one of my main concerns centres on accurately characterising the copular dichotomy, I have revised the most influential accounts on *ser* and *estar.* Here I distinguish between aspectual accounts (Luján 1980; 1981; Schmitt, 1992; 2005; Fernández Leborans, 1995a; 2007; Roby, 2009; Marín, 2000; 2004; 2010), discourse-based accounts (Clements, 1988; 2006; Maienborn, 2005) and lexico-syntactic accounts (Gallego and Uriagereka, 2009; 2016; Brucart, 2010; 2012; Arche *et al.,* to appear). With major and minor differences, they all concur on the idea that *estar* has an extra feature that *ser* is deprived of, although they differ with respect to its aspectual, discursive and syntactic nature. Following Arche (2006; 2012), I disregard that the Spanish copulas neither diverge with respect to their inner-aspect properties nor with the outer-aspect ones. Similarly, I am at odds with discursive accounts that sustain that

only *estar* is connected to the discourse. Indeed, the evidence brought up so far suggests that *ser* and *estar* differ with regard to their syntax and semantics. Hence, I adopt the syntactic configuration of *ser* and *estar* proposed by Arche *et al.* (to appear) who argue that *estar* consists of a VP with more functional heads than that of *ser*. Hence, *estar* is more complex because it is formed by a copular element plus an extra head, whereas *ser* only involves a copular element.

Chapter 3

The acquisition of the copular alternation in Spanish as a second language

In Chapter Two, we have shown that two types of factors determine the distribution of the Spanish copular verbs: syntactic factors, given that the distribution of the copulas is fixed for some adjectival predicates (recall *ser* combines with IL (only-*ser*) adjectives such as *famoso* 'famous' and *estar* combines with SL (only-*estar*) adjectives such as *contento* 'happy'); and discourse-pragmatics factors, since when the two copulas are grammatically possible (i.e. dual dependent-stage adjectives of physical appearance such as *viejo* 'old', dual dependent-stage adjectives of disposition such as *amable* 'kind' and dual self-standing stage adjectives such as *nervioso* 'nervous'), it is the discursive context that decides which copula is felicitous. These facts lead us to envisage two kinds of acquisition difficulties: those concerning the acquisition of syntactic properties and those regarding the interplay between syntax and discourse. L2 learners must acquire the knowledge to determine which copula fits in those cases where only one copula produces a grammatical result (i.e. IL (only-*ser*) adjectives and SL (only-*estar*) adjectives) and to determine which copula is congruent with the discursive situation in those cases where the copular alternation is allowed (i.e. dual adjectives).

3.1 Research Questions

The identification of the type of difficulties that L2ers encounter at different levels of language proficiency will give us a picture of the mental representation that they possess at each stage, thus allowing us to describe their acquisition pathway. This general aim will be pursued here through the following research questions. The first question (1) considers whether the acquisition pathway is determined by the syntactic

properties of elements in question. Concretely, I will look at whether the syntactic configuration of the Spanish copular verbs governs their L2 acquisition. The second question (2) raises the issue of whether L2 acquisition becomes more complicated when the properties of the discourse are involved in the selection of an item. And, as both copular verbs are context-dependent, this makes them ideal candidates to assess whether or not the acquisition of items that are linked to contextual information (i.e. copular clauses with dual adjectives) is more challenging for L2 learners than the acquisition of items that rely exclusively on the syntax (i.e. copular clauses with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives). Since the distribution of the Spanish copulas is affected by both syntactic and discursive factors, the results of this study will enable us to provide empirical evidence for the broader question (3) (which has been the focus of much recent literature) concerning whether linguistic phenomena involving properties that belong to the interplay between core syntax and the peripheral discourse module of the grammar can be fully acquired to a native-like level, as posed by Sorace (1993), Papp (2000), Valenzuela (2005), Sorace and Filiaci (2006), Sorace (2011), among others. These research questions can be formulated as follows:

1. Is the L2 acquisition pathway affected by the syntactic properties of the Spanish copular verbs?
2. Is the L2 acquisition pathway affected by the discursive properties of the Spanish copular verbs?
3. Can linguistic phenomena that involve the interplay between syntax and pragmatics be acquired to a native-like level?

The motivation for these research questions is based on the fact that, as previously suggested, the difference between *ser* and *estar* is both syntactic and discourse-pragmatic based. In this sense, I will entertain hypotheses concerning the acquisition of the core properties of the Spanish copulas and hypotheses regarding the acquisition of phenomena that involves the connection between core syntax and discourse. Firstly, I will entertain the idea that if it is the syntactic complexity that matters for L2 acquisition then, the simpler an item is, the more chances it has to be early and eventually fully acquired. If this is the case, then the copula that is first expected to be acquired is *ser*. We will call this hypothesis the Syntactic Complexity Hypothesis. Secondly, cases that depend on the discourse will allow us to evaluate the

so-called Interface Hypothesis (Sorace, 1993; Tsimpli and Sorace, 2006; Guijarro Fuentes and Marinis, 2007; Sorace and Serratrice, 2009; Sorace, 2011; among others) which postulates that linguistic phenomena governed by only one module of the grammar (e.g. syntax) pose lesser difficulties for L2ers than those that are governed by an interface (i.e. the connection between properties of the language system itself, such as syntax-semantics, syntax-morphology, syntax-pragmatics, among others). In particular, recent studies (Sorace, 1993; Valenzuela, 2005; Sorace and Filiaci, 2006; Tsimpli and Sorace, 2006; Belletti; Bennati and Sorace, 2007; to name a few) claim that the interface between syntax-pragmatics is more problematic than other interfaces because it encompasses a 'higher' level of language use. That is, L2 learners need to combine information from linguistic as well as extra-linguistic domains (such as discursive-pragmatic information) in order to assess the appropriateness of a given linguistic structure with respect to a specific discursive context.

3.2 Hypotheses

In this section I describe the two hypotheses that are being tested in this research study. On the one hand, the Syntactic Complexity Hypothesis conjectures that L2 acquisition is dependent on the complexity of the syntactic configuration of the copular verbs *ser* and *estar* and, on the other hand, the Interface Hypothesis proposes that the acquisition of linguistic phenomena that encompass information from the interaction between syntax and discourse is more vulnerable than phenomena that are contingent solely on the syntax.

3.2.1 The Syntactic Complexity Hypothesis

In Chapter Two we have seen that, with major and minor differences, authors concur on the idea that *ser* is less complex than *estar*. Some (Luján, 1980; 1981; Schmitt, 1992; 2005; and Fernández Leborans, 1995a; 2007; Marín, 2000; 2010; Camacho, 2012; among others) pose that the Spanish copulas differ with respect to their aspectual properties; with *ser*, in essence, representing an underspecified copula, and *estar* carrying an additional component making it specified for Aspect. Others (Gallego and Uriagereka, 2009; 2016, Brucart, 2010; 2012, Arche *et al.*, to appear, among others)

instead argue that *ser* consists of fewer structural elements than *estar*. Specifically, *estar* carries an extra element of a prepositional nature that *ser* lacks and as a result, *ser* predicates the property of the individual while *estar* predicates the property in relation to a given circumstance. In this work we assume the syntactic account of Arche *et al.* (to appear) as a characterization of the Spanish copulas, choosing to reject aspectual accounts as they inaccurately argue that the copular contrast translates as differences at the levels of Inner and Outer Aspect. These (Luján, 1980; 1981; Schmitt, 1992; 2005; and Fernández Leborans, 1995a; 2007; Marín, 2000; 2010; Camacho, 2012; among others), as shown above, claim primarily that the copular contrast stems from *ser* yielding unbounded states whereas *estar* yields bounded states.

Based on the characterization of the Spanish copulas depicted in (226)–(227) (repeated here as (1)–(2) (Arche *et al.*, to appear)), the Syntactic Complexity Hypothesis predicts that if the L2 acquisition process is determined by the elements of the L1, then the more underspecified an item is, the earlier it will be acquired. According to this view and in terms of the L2 acquisition of the Spanish copulas, the copular verb to be first and eventually fully acquired is *ser*. Observe that *ser* is also the most productive copula of the two. As *ser* has a structure with fewer structural elements, it puts fewer combinatorial restrictions on the predicates it combines with and, consequently, *ser* is compatible with more types of predicates than *estar*. Concretely, *ser* is privative of nominal predicates, and equational and pseudo-clefts and, as a result, *ser* is expected to be more constantly present in the input than *estar*. In constrast, the prediction for *estar* is that its L2 acquisition will be delayed and problematic, given its being a more complex item. That is, as *estar* consists of a copular element and an additional prepositional element that acts as *a relational item* linking the property to a particular circumstance, it is expected to be more challenging for the L2 learners.

The main advantage of this hypothesis is that since it rests on the syntax of the L1, its range of applicability does not only circumscribe to learners with only one copular verb (e.g. English-speaking L2 learners) but to all L2 learners regardless of the copular system that they have in their native language.

(1) serP
           VP
    Copula V   SC
          DP   AP

(2) estarP
           VP
    P_C Cop
        Copula V   SC
              DP   AP
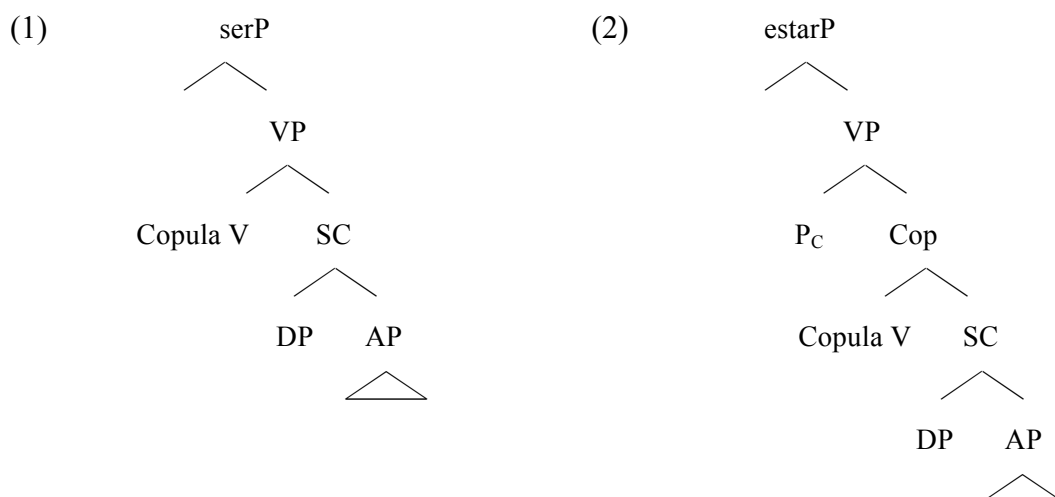
With respect to the acquisition of *ser* and *estar* with adjectival predicates, the Syntactic Complexity Hypothesis predicts no major difference in the acquisition of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and dual adjectives (e.g. *amable* 'kind', *viejo* 'old' and *nervioso* 'nervous'), although the latter are expected to pose slightly more difficulties since these adjectives are compatible with both copular verbs. As for *estar,* the hypothesis presented here foresees that it will be acquired after *ser,* given the fact that *estar* has a structure with an additional relational element than that of *ser,* thus leading to a more problematic acquisition. As before, we expect a similar acquisition of *estar* in combination with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and dual adjectives, although the latter are expected to be more challenging. Figure 3.1 summarises the predicted pathway of acquisition according to the Syntactic Complexity Hypothesis.

ser with IL(only-*ser*) adjectives (e.g. *famoso* 'famous')		*ser* with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts		*estar* with SL(only-*estar*) adjectives (e.g. *contento* 'happy')		*estar* with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in SL contexts
	<		<		<	

Figure 3.1: Predicted acquisition pathway of Spanish copular verbs in an L2 according to the Syntactic Complexity Hypothesis

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Finally, as the empirical study presented in the following chapter will test the validity of the Syntactic Complexity Hypothesis using statistical procedures, before continuing I will state the predictions of the Null Hypothesis (H_0) (Sanz, 2005; Larson-Hall, 2010) concerning a population which has only one copular verb in the native language. These predict that English-speaking learners will acquire both copular verbs in a similar manner, that is, there will be no relationship between the variables of *ser* and *estar*. The Null Hypothesis will be rejected only if the *p*-value is lower than 5% (p=.05), and will otherwise be accepted.

3.2.2 The Interface Hypothesis

As shown in Chapter Two, not only syntactic factors but also discursive ones play a determining role in the distribution of the Spanish copulas. Recall that while IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy') have an obligatory copular distribution, dual adjectives are grammatically possible with both copulas (compare (3)–(4)). Therefore, only in the latter group does the speaker need to resort to two sources of information in order to decide which copular verb to use. They need to assess whether the internal properties of the copula match the non-linguistic information proceeding from the discursive context. This interplay between syntax and discourse manifests in the selection of *ser* for IL contexts and *estar* for SL contexts. To illustrate, an IL context (3), we can imagine a person with whom everyone gets on well because she is happy and optimistic. Likewise, an SL context appropriate to (4) could be one that describes the property in relation to a particular circumstance; for instance Laura is happy because she has found a job.

    (3) *Laura **es** alegre.*
       Laura **be**$_{\text{SER-PRESENT-3SG}}$ cheerful.
       'Laura is cheerful.'

    (4) *Laura **está** alegre.*
       Laura **be**$_{\text{ESTAR-PRESENT-3SG}}$ cheerful.
       'Laura is cheerful.'

The variability shown by L2ers with respect to the copular acquisition documented in previous SLA studies (VanPatten, 1985; 1987; Briscoe, 1995; Ramírez Gelpi, 1995; Geeslin, 1999; Geeslin, 2003, Woolsey, 2008; Pinto and Guerra, 2015; Long, 2016, among others) may be ascribed to a problematic integration of information pertaining to different modules of the grammar (i.e. the interplay between syntax and pragmatics), rather than an issue concerning the syntactic complexity of the copulas themselves. In this respect, the Interface Hypothesis (Sorace, 1993; Hopp, 2004; Tsimpli and Sorace, 2006; Guijarro Fuentes and Marinis, 2007; Sorace and Serratrice, 2009; Sorace, 2011 and Pinto and Guerra, 2015, among others) accounts for the acquisition to a native-like level only of linguistic phenomena that depends solely on syntax. By contrast, L2ers will exhibit prolonged difficulties and residual optionality with linguistic phenomena that involve an interface (i.e. they combine information from two different modules of the grammar) since they require a higher processing load.

According to the Interface Hypothesis, L2 learners will become highly proficient when *ser* and *estar* appear in combination with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy') because their copular distribution is syntactically fixed. In contrast, they are expected to experience difficulties when the copular verbs appear in combination with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') because both copulas are grammatically correct and consequently, to choose the discursively felicitous copula, L2 learners must encompass information not only from the syntax but also from the discourse. To be precise, *ser* will be expected for IL contexts that ascribe a property to the subject in and of itself and *estar* for SL contexts that depict a property that holds true of the subject in a particular circumstance. In this respect, the present study differentiates itself from earlier studies on the L2 acquisition of *ser* and *estar* (Bruhn de Garavito and Valenzuela, 2008 and Pinto and Guerra Rivera, 2015) that have previously tested the Interface Hypothesis in two important ways: firstly, they measured (using a five-point Likert scale) the levels of acceptance and rejection of grammatical and ungrammatical copular clauses only with adjectives that have a fixed distribution, but did not use the same scale to measure the felicitous and infelicitous combinations of copular clauses with respect to discursive contexts, instead they relied on a sentence matching task (as in Bruhn de Garavito and Valenzuela 2008) or on a fill-in-the-gap

task (as in Pinto and Guerra Rivera, 2015); secondly, they did not include focused oral production tasks in order to measure the L2ers' performance with copular clauses.

Moreover, as Sorace (2005) and Sorace and Keller (2005) argue, native grammatical judgments provide a reliable source of information that describes the type of linguistic input received by L2ers. While natives tend to give clear-cut judgments on linguistic phenomena that involve core properties of the grammar, they allow variable degrees of acceptability with phenomena that belongs to the interface between syntax and pragmatics. As Sorace and Serratrice (2009) point out, this occurs because pragmatic violations give rise to inappropriate or redundant selections with respect to a given context, but do not lead to clear ungrammaticality. Hence, the linguistic input with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives is consistent because its syntactic distribution is obligatory. Conversely, the input is liable to variation with dual adjectives. Given that the Interface Hypothesis (idem) is a hypothesis of ultimate attainment, its predictions can be summarised as follows: highly proficient L2 learners will largely abandon optionality and attain a target-like performance with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives, but exhibit residual optionality with dual adjectives since pragmatics are involved and they will need to assess whether the copula selection is congruent with the discursive context. In this regard, Sorace (1993) differentiates two types of mental representations that can be attained by highly proficient L2ers: divergence and incompleteness. The former entails a mental representation that deviates significantly from the native one, while the other refers to a mental representation that lacks properties instantiated in the L1.

3.2.2.2 Predictions for the copular acquisition in an L2

The Interface Hypothesis predicts that L2 learners will fully acquire the copular distribution when *ser* and *estar* are dependent only on the syntax, and consequently, IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy') will be acquired earlier and eventually fully. I argue, however, that an additional distinction must also be added, since learners will acquire *ser* with IL (only-

ser) adjectives before *estar* and SL (only-*estar*) adjectives because, as we saw earlier, *ser* is syntactically less complex than *estar*. Conversely, as the copular alternation with dual adjectives is dependent on the type of context (i.e. *ser* for IL contexts and *estar* for SL contexts), the Interface Hypothesis predicts a vulnerable L2 acquisition. L2ers are expected to exhibit difficulties when combining syntactic information with that pertaining to the discourse (see Figure 3.2).

ser with IL(only-*ser*) adjectives (e.g. *famoso* 'famous')		*estar* with SL(only-*estar*) adjectives (e.g. *contento* 'happy')		*ser* with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts		*estar* with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in SL contexts
	<		<		<	

Figure 3.2: Predicted acquisition pathway of Spanish copular verbs in an L2 according to the Interface Hypothesis

Finally, let us note here that the Null Hypothesis (Sanz, 2005; Larson-Hall, 2010) predicts that the acquisition of the copular alternation by English-speaking L2 learners will show no difference with respect to copular clauses that have a fixed syntax (e.g. IL (only-*ser*) adjectives and SL (only-*estar*) adejectives) and those with dual adjectives that depend on the discursive information for their selection. The Null Hypothesis will be rejected only if the *p*-value is lower than 5% (p=.05), and will otherwise be accepted.

3.3 Summary of the Chapter

In this chapter, I have presented the research questions and the two hypotheses that account for the L2 variability in the selection of *ser* and *estar*. The Syntactic Complexity Hypothesis postulates that if L2 acquisition is affected by the syntactic complexity of the elements in question (Arche *et al.*, to appear), then *ser* will be acquired earlier than *estar*. In turn, L2 learners will exhibit prolonged difficulties with *estar* since this copula has an extra element of a prepositional nature that *ser* lacks. If, instead, L2 acquisition is governed by whether or not the copular distribution is

regulated by the syntax or by the interplay between syntax and pragmatics, then the Interface Hypothesis (Sorace, 1993; Tsimpli and Sorace, 2006; Sorace and Serratrice, 2009; Sorace, 2011; among others) predicts that highly proficient learners will acquire *ser* to a native-like level with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy'). By contrast, they will exhibit prolonged difficulties when the copular alternation is context-dependent. As both copulas are grammatically possible with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous'), in order to select the discursively felicitous copula, learners must assess its appropriateness with respect to discourse-related information. It is this interplay of information proceeding from different modules of grammar (i.e. syntax and discourse) that gives rise to L2 variability in copular selection, and even cases of residual optionality at higher levels of the language proficiency. In contrast, learners will reach a native-like competence when the copular distribution is obligatory, that is, with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives, since they involve fewer processing loads than interface phenomena with dual adjectives.

Chapter 4

The Experimental Study

As we have seen in the previous chapter, our two working hypotheses provide us with contrasting predictions regarding the L2 acquisition of *ser* and *estar*. On the one hand, the Syntactic Complexity Hypothesis forecasts that learners will experience delays in the acquisition of *estar* because this is the most complex copula of the two. Recall that we have defined *estar* as involving an additional layer containing a relational element of a prepositional nature. On the other hand, the Interface Hypothesis predicts that learners will acquire *ser* and *estar* when their syntactic distribution is obligatory (i.e. *ser* with IL (only-*ser*) adjectives such as *famoso* 'famous' and *estar* with SL (only-*estar*) adjectives such as *contento* 'happy') but they will exhibit persistent difficulties (manifested as optionality), even at higher levels of proficiency, when the copulas encompass information not only from the syntax but also from the discursive context. To illustrate, the copulas alternate with dual adjectives such as *amable* 'kind' depending on whether the context portrays a property of the subject in and of itself or whether it attributes the property in reference to a circumstance.

In this chapter I present the experimental study that has allowed me to assess the validity of the two working hypotheses. Based on the syntactic and discursive properties of the Spanish copulas, I have divided adjectival predicates into two main groups: adjectives that exclusively combine with one copula (either with *ser* so-called IL (only-*ser*) adjectives or with *estar* SL (only-*estar*) adjectives) and adjectives that are compatible with both (i.e. dual adjectives). Tasks were devised to assess L2 acquisition for each adjectival group. These aimed to evaluate knowledge of the copulas with dual adjectives and, crucially, contained a paragraph providing contextual information. An equal number of tokens were included to elicit each one of the copulas in contrasting contexts. Furthermore, following common practice in Generative Second Language Acquisition, in order to better tackle the underlying mental representation of English

speakers of Spanish, the experimental design included two types of elicitation tasks: focused oral production tasks and written comprehension tasks. In what follows, I present the elicitation tasks that I designed for the pilot and the final experimental study. I also provide information about the participants that were targeted. As I will detail below, all the tasks were designed originally by me; this study has not employed tasks used by others in the past, or taken into consideration previous results to draw any comparison. The main reason for this is that, to the best of my knowledge, no previous research has aimed to capture the acquisition of the semantic contrast rooted in the copulas.

Previous studies have focused on the developmental pathway of the copulas in spontaneous oral production (e.g. VanPatten, 1985; 1987; Ryan & Lafford, 1992; Guntermann, 1992; Briscoe, 1995; among others) without including focused elicitation tasks where the learner has to make a decision between the copulas. Other studies conducted have simply focused on the factors that influence the usage of *estar* by learners (e.g. Geeslin, 1999; Geeslin, 2003; Geeslin and Guijarro Fuentes, 2006; and Woolsey, 2008, among others). In addition, the array of tokens in previous studies was unrestricted, in the sense that they included not only genuine copular cases but also instances where the copular verbs were acting as auxiliary verbs, as well as when combined with past participles (e.g. *preocupado* 'worried', *enojado* 'upset', as found in Geeslin 2002, p. 440, Woolsey, 2008, p.284).

Another lacuna in previous studies pertains to the analysis of the data: the vast majority lacked results from a native control group (VanPatten, 1985; 1987; Ryan and Lafford, 1992; Guntermann, 1992; Briscoe, 1995, to name a few) and a language proficiency measure to determine the participants level in Spanish (Briscoe, 1995; Geeslin, 1999; Dorado, 2010, among others); many lacked appropriate statistical analyses that provided accurate insight into the level of attainment, instead relying on percentages only (e.g. VanPatten, 1985; Briscoe, 1995; Francis 2007), or combining data for statistical analysis from tasks of different modalities into one set (e.g. oral and written tasks) (Geeslin, 1999; Woolsey, 2008, among others). Thus, an experiment that allows us to gain a comprehensive picture of the acquisition of the copulas with adjectival predicates does not exist in previous literature.

The main properties of our study are the following:

A. Design and conduction of a pilot study prior to the definite experimental version, run with 10 participants.

B. Thirty adjectives tested: 6 IL (only-*ser*) adjectives (e.g. *famoso* 'famous'), 6 SL (only-*estar*) adjectives (e.g. *contento* 'happy'), 6 dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), 6 dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous').

C. Four elicitation tasks of different modalities: two oral production tasks and two written comprehension tasks. All data were collected in the presence of the researcher.

D. Comprehension tasks which measure not only the level of acceptance but, crucially, the level of rejection of the ungrammatical copular combinations or infelicitous choices with respect to a discursive context.

E. Total number of tokens: 108, of which 32 contained 6 IL (only-*ser*) adjectives and 6 SL (only-*estar*) adjectives and 72 included 6 dual dependent-stage adjectives of physical appearance, 6 dual dependent-stage adjectives of disposition and 6 dual self-standing stage adjectives.

F. Number of L2 learners: 71

G. Number of native controls: 25

All statistical analyses have been conducted under the advice of a statistical expert from the Department of Mathematical Sciences at the University of Greenwich.

4.1 Rationale of the experimental design

In this section I make a few observations relating to the sources of data that provide us with a better insight into the underlying mental representation of the L2 learners. Data can be obtained from a variety of tasks, ranging from spontaneous oral to elicitation tasks. Early L2 research on the acquisition of the Spanish copulas (VanPatten, 1985; 1987; Gunterman, 1992; Ryan and Lafford, 1992; Briscoe, 1995, among others) generally focused on the semi-naturalistic oral production of L2 learners. They measured the spontaneous occurrence of *ser* and *estar* during interviews, picture-

description tasks and classroom observations. Although results are informative and ecologically valid (Eisenbeiss, 2010), since they emulated real-life situations, they failed to provide us with a full and well-founded picture of the underlying mental representation of the L2 learner. Crucially, spontaneous tasks do not give the researcher control over the utterances that L2 learners produce, nor can they inform us regarding whether or not L2 learners have acquired the knowledge to distinguish the semantic difference that the Spanish copulas yield in contrasting contexts (e.g. adjectival predicates). In contrast, the elicitation modality offers us the possibility of designing tasks that are linguistically focused. That is, they will allow us to elicit *ser* and *estar* in all possible combinations and contexts.

Here, following common practice in the Generative Framework, I assume Chomsky's classical difference between competence and performance (1957). More specifically, competence consists of the knowledge and understanding of the language, while performance incorporates "what the speaker does with that knowledge" (Chomsky 1995, p.14). As White (2003) reports on second language acquisition, there is no direct way to measure competence, since "linguistic competence is an abstraction" (2003, p.17). To a greater or lesser extent, all tasks test the performance of the participant in a specific situation. Some tasks assess the implicit grammatical knowledge by analysing the L2er's comprehension, whereas others assess their explicit grammatical knowledge by measuring their oral or written production. As has been observed in the literature, comprehension results allow us to gain a better insight into the underlying mental representation of the L2 learner than production tasks do.

Let us also note that time constraints play a significant role in task performance. Oral production tasks put the participant under the pressure of having to give a response within a reasonable span of time. However, written comprehension tasks are subject to time-constraints in a much more relaxed and flexible manner as long as they are self-paced. Since comprehension results inform us more efficiently regarding the underlying mental representation of the L2ers I will pay close attention to them.

As for the copular acquisition with adjectival predicates in an L2, more recent studies collected either semi-naturalistic oral production data through guided interviews and picture-description tasks (Geeslin and Long, 2015; Long, 2016) or combined the latter techniques with elicitation tasks such as a grammaticality judgment tasks which

tested the L2er's preference for clauses with *ser, estar* or both with respect to a given context (Geeslin, 1999; Geeslin, 2003; Geeslin and Guijarro Fuentes, 2006; Woolsey, 2008). Other studies (Bruhn de Garavito and Valenzuela 2008; Pinto and Guerra Rivera, 2015) instead relied primarily on elicitation tasks such as grammaticality judgments that asked participants to rate the grammaticality of copular clauses using a five-point Likert scale, or fill-in-the-gap tasks where the participant wrote a copular clause according to a given context. Since elicitation tasks are proven to be a methodologically sound procedure, prior to my definite research study, I examined the feasibility of several tasks as to whether or not they would enable us to elicit natural copular clauses with adjectives. In particular, I designed several potential tasks and after careful examination two written comprehension tasks and one oral production task were selected. These were used in the pilot study I conducted, which I will describe in the section below.

4.2 Pilot study: description, novelty and lessons learnt

The research questions that motivated the pilot study are as follows:

(1) Do monolingual native Spanish speakers employ one copula exclusively in combination with IL (only-*ser*) adjectives (i.e. *ser*) and with SL (only-*estar*) adjectives (i.e. *estar*)?

(2) Is the copular alternation with dual adjectives subject to the contextual information? Does an IL context elicit a response with *ser*? Does a SL context elicit a response with *estar*?

The first question assesses whether only one copula is possible with IL (only-*ser*) adjectives (e.g. *sabio* 'wise') and SL (only-*estar*) adjectives (e.g. *vacía* 'empty'). Specifically, we look at whether native Spanish speakers employ *ser* in combination with IL (only-*ser*) adjectives and *estar* with SL (only-*estar*) adjectives. The second question examines whether the type of context guides the copular alternation with dual adjectives (e.g. *nervioso* 'nervous'). More specifically, since both copulas are grammatical I look at whether natives base their copular selection on the type of context, that is, whether IL contexts that portray properties of the subject in and of itself elicit responses with *ser*, and whether SL contexts that describe a property in relation to

a circumstance elicit responses with *estar*. Finally, and on a different note, the pilot also enabled me to test the efficiency and reliability of our elicitation tasks, ensure that the task order was consistent, to measure the length of the study and to solve any unforeseen circumstances.

The data from the pilot came from ten monolingual Spanish speakers[15] who were living in London at the time of data collection (May 2015). Nine of the participants were female and one male. Their age ranged from 30 to 54 years (M=40.3, std. deviation=8.19) and, with respect to educational background, eight had completed a Bachelor's degree, one had a technical qualification and another had a certificate of secondary education.

I will now describe each task according to the order of presentation followed for the pilot study. As Figure 4.1 shows, the experimental design consisted of three elicitations tasks: one written comprehension task that assessed the level of acceptance of grammatical combinations with IL (only-*ser*) adjectives and SL (only-estar) adjectives, as well as the level of rejection of ungrammatical ones. The second written comprehension task measured the acceptance of felicitous combinations of copular clauses and dual adjectives with respect to contrasting discursive contexts (i.e. in IL and SL contexts). The last task elicited copular clauses orally with the same set of with dual adjectives that were presented in the written comprehension task (task 2).

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[15] Participants were originally from Madrid (2), Málaga (2), Almería (1), Córdoba (1), Huelva (1), León (1), Mérida (1) and Murcia (1).

WRITTEN COMPREHENSION	ORAL PRODUCTION
Task 1: Written comprehension task 28 tokens 7 IL (only-*ser*) adjectives (e.g. *sabio* 'wise') 7 SL (only-*estar*) adjectives (e.g. *vacía* 'empty')	
Task 2: Written comprehension task 56 tokens 4 dual dependent-stage adjectives of physical appearance (e.g. *guapo* 'handsome') 5 dual dependent-stage adjectives of disposition (e.g. *atento* 'attentive/focused') 5 dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	**Task 3: Oral production task** 28 tokens 4 dual dependent-stage adjectives of physical appearance (e.g. *guapo* 'handsome') 5 dual dependent-stage adjectives of disposition (e.g. *atento* 'attentive/focused') 5 dual self-standing stage adjectives (e.g. *nervioso* 'nervous')

Figure 4.1: Task design for the pilot study

4.2.1 Written comprehension task with IL (only-ser) and SL (only-estar) adjectives

The first comprehension task tests the knowledge of copular clauses with adjectival predicates that have a fixed syntactic distribution. To this end, seven IL (only-*ser*) adjectives (e.g. *sabio* 'wise') and seven SL (only-*estar*) adjectives (e.g. *vacía* 'empty') (see Figure 4.2) were combined with *ser* and *estar* in order to form pairs of grammatical (see (5)–(7)) and ungrammatical sentences (see (6)–(8)). The resulting twenty-eight tokens were randomised and presented in a paper-based questionnaire. This task contained both animate and inanimate subjects (e.g. José and *la maleta* 'the suitcase'). For each token the participants had to rate the grammaticality of each copular clause using a five-point Likert scale indicating whether it was 'very good' +2, 'good' +1, 'neutral' 0, 'bad' -1 or 'very bad' -2. This technique allowed us to tap into the implicit knowledge of the participant by not only measuring the level of acceptance of grammatical sentences (i.e. the grammatical combination of *ser* with IL (only-*ser*) adjectives and *estar* with SL (only-*estar*) adjectives) but also the level of rejection of ungrammatical ones. I was particularly interested in discovering whether the participants were able to identify the grammatical choices, but equally so to see if they

were able to discard ungrammatical combinations, since this is what ultimately provides us with an understanding of the participant's level of acquisition.

(5) *Pedro* **es** *sabio.*   Grammatical clause with *ser*
    Pedro **be**$_{\text{SER-PRESENT- 3SG}}$ wise.
    'Pedro is wise.'

(6) ******Pedro* **está** *sabio.*   Ungrammatical clause with *estar*
    Pedro **be**$_{\text{ESTAR-PRESENT- 3SG}}$ wise.
    'Pedro is wise.'

(7) *La maleta* **está** *vacía.*   Grammatical clause with *estar*
    The suitcase **be**$_{\text{ESTAR-PRESENT- 3SG}}$ empty.
    'The suitcase is empty.'

(8) ******La maleta* **es** *vacía.*   Ungrammatical clause with *ser*
    The suitcase **be**$_{\text{SER-PRESENT- 3SG}}$ empty.
    'The suitcase is empty.'

7 IL (only-*ser*) adjectives	Animate subjects: *auténtica* 'authentic', *alcohólico* 'alcoholic', *emigrante* 'emigrant' and *sabia* 'wise'.
	Inanimate subjects: *semanal* 'weekly' (the magazine), *temporal* 'temporary' (the offer), *urgente* 'urgent' (the matter).
7 SL (only-*estar*) adjectives	Animate subjects: *borracho* 'drunk', *contento* 'content', *descalzo* 'barefoot', *enferma* 'sick'
	Inanimate subjects: *húmedo* 'wet' (the floor), *lleno* 'full' (the bus), *vacía* 'empty' (the suitcase).

Figure 4.2: IL (only-*ser*) and SL (only-*estar*) adjectives tested in the pilot

4.2.2 Written comprehension task with dual adjectives

The second written comprehension task was aimed at testing copular clauses in combination with dual adjectives. This task required participants to rate the appropriateness of a pair of copular clauses with respect to a context, using the same five-point Likert scale that was used in the previous task. To do so, twenty-eight brief background contexts were carefully written for fourteen dual adjectives (see Figure 4.3),

in particular, four dual-dependent stage adjectives of physical appearance (e.g. *guapo* 'handsome'), five dual-dependent stage adjectives of disposition (e.g. *atento* 'attentive/focused') and five dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). Following Marín (2010), recall that dual dependent-stage adjectives are those that are only able to behave as a stage if they are combined with *estar* as well as in predicative complements of the object. Conversely, dual self-standing stage adjectives are those that can function by themselves as a stage in a larger array of syntactic constructions such as absolute clauses (e.g. *Nervioso, Pedro derramó el café* 'Nervous, Pedro spilt the coffee), predicative complements of the subject (e.g. *Pedro llegó a la oficina nervioso* 'Pedro arrived at the office (being) nervous') and also as predicative complements of the object (e.g. *Veo a Pedro nervioso* 'To me Pedro looks anxious'). (see Appendix A).

4 dual dependent-stage adjectives of physical appearance	*delgado* 'slim', *grande* 'big', *guapo* 'handsome', *joven* 'young'
5 dual dependent-stage adjectives of disposition	*aburrido* 'boring/bored', *antipático* 'unpleasant', *atento* 'attentive/focused', *delicado* 'considerate/delicate, sickly', *orgullosa* 'proud'.
5 dual self-standing stage adjectives	*alegre* 'cheerful', *feliz* 'happy', *inquieto* 'restless', *nervioso* 'nervous', *tranquilo* 'calm'

Figure 4.3: List of dual adjectives tested in the pilot study

This is the first time that a study has evaluated the appropriateness of copular verbs with respect to contrasting discursive contexts, having an underlying syntactic classification of the adjectives as a rationale. In these cases the copular choice yields either felicitous or infelicitous responses but never ungrammatical ones since both copulas are compatible with dual adjectives. Specifically, as IL contexts depict the property of an individual (see Figure 4.4), the copula expected is *ser*. In contrast, as SL contexts portray a property that holds of the subject insofar as s/he is at a given circumstance (e.g. how Fernando looks wearing a special outfit for his graduation day) (see Figure 4.5), *estar* will be required.

José inherited his mother's beauty. He has green eyes, black hair and measures 1.80 cm in height.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *José es guapo.* *handsome.*	-2	-1	0	+1	+2
2. *José está guapo.* *handsome.*	-2	-1	0	+1	+2

Figure 4.4: Example of a context portraying an IL property

The outfit that Fernando is wearing today for his graduation suits him.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Fernando es guapo.* *handsome.*	-2	-1	0	+1	+2
2. *Fernando está guapo.* *handsome.*	-2	-1	0	+1	+2

Figure 4.5: Example of a context portraying a SL property

The novelty of this task lies in the fact that the participants needed to rate pairs of copular sentences with respect to contrasting discursive contexts. Unlike previous studies (Geeslin, 1999, 2002, 2003, Guijarro Fuentes and Geeslin 2006; Bruhn de Garavito and Valenzuela, 2008; Bruhn de Garavito, 2009[16]; Pinto and Guerra Rivera, 2015), they were not only asked to choose which copular clause best corresponds to the context but, most importantly, they needed to rate the appropriateness of the other possible copular sentence. Participants were instructed to freely use the scale, that is, I informed them that it could be the case that one or both sentences were 'very good', 'good', 'very bad', 'bad' or 'neutral'. My main interest with this task was to investigate both the level of acceptance of the copula clause that matched the context as well as the ratings of the other copular clause for the level of rejection.

This comprehension task is notably superior to the effectiveness of previous

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[16] Bruhn de Garavito and Valenzuela (2008) and Bruhn de Garavito (2009) use a sentence-matching task to test the copular knowledge with dual adjectives in contrasting contexts. Four options are presented to the participant: a copular sentence with *ser,* the same copular sentence with *estar*, both copular clauses and neither of them. Therefore, they only measured the level of appropriateness of each copula with respect to the context and whether the learner treats *ser* and *estar* as synonyms.

elicitation tasks (Geeslin, 1999; 2000; 2002; 2003; Guijarro Fuentes and Geeslin, 2003; Geeslin and Guijarro Fuentes, 2006; Bruhn de Garavito and Valenzuela, 2008; Woolsey, 2008; Pinto and Guerra Rivera, 2015; among others) in that it enables us to measure the semantic contrast using minimal pairs where only the copular verb changes. This diverges from previous studies, which have simply measured the appropriateness or preference of one copular clause with respect to a context.

Moreover, the adjectival taxonomy that I employed is broader and more detailed. Previous studies (Geeslin 1999; 2000; and 2003, among others) included some SL (only-*estar*) adjectives (e.g. *enfermo* 'sick') or participial adjectives of reflexive psychological verbs (e.g. *enojado* 'upset', *sorprendido* 'surprised', *preocupado* 'worried') (see Marín 2004, p.30; Marín and McNally 2011, p.474) that only combine with *estar*, and presented these as if they were compatible with both copular verbs. Similarly, as Geeslin (1999; 2003), Guijarro Fuentes and Geeslin (2006) and Woolsey (2008) focused on the L2 acquisition of *estar,* their elicitation tasks measured whether L2 learners employ this copula for comparisons where the subject is the frame of reference (along the lines of Falk, 1979) and for a direct experience. Thus, these authors mainly elicited adjectives of physical description (e.g. *guapa* 'pretty' which mainly correspond to the dual dependent-stage adjectives of physique that I included in this study) or individual traits (e.g. *inteligente* 'intelligent'). Consequently, their type of experimental tasks fail to elicit dual dependent-stage adjectives of disposition (e.g. *atento* 'attentive/focused') nor dual self-standing stage adjectives (e.g., *nervioso* 'nervous') in combination with both *ser* and *estar*.

4.2.3 Oral production task with dual adjectives

The third and final task is innovative because, to the best of my knowledge, in no study to date have copular clauses been elicited orally in a controlled fashion. Recall that oral production was collected via semi-structured interviews or picture-description tasks such as in VanPatten (1985 & 1987), Ryan and Lafford (1992), Briscoe (1995), Geeslin (1999; 2003), Geeslin and Guijarro Fuentes (2006), Woolsey (2008), Geeslin and Gudmestad (2010) and Geeslin and Long (2015). As we shall see, this task enables us to assess the oral production of natural copular clauses with the same dual adjectives as in the previous written comprehension task. This provides us with a complete picture of the comprehension and production of copular clauses with the same set of dual

adjectives.

To this end I wrote twenty-eight original background contexts where the same property was either described as belonging wholly to the individual (IL contexts) (Figure 4.7) or in relation to a particular circumstance (SL contexts) (e.g. an exciting job opportunity in Madrid, as Figure 4.8 illustrates). Furthermore, each context was followed by a comment made by a third character. The novelty of these comments is that they are based on syntactic constructions that give rise to the IL/SL distinction but do not include a copular element. Note that as these constructions contain dual adjectives, the factor that decides which copular clause is felicitous is the discursive context. In this way I ensure that the participant bases their copula selection on the contextual information. As Figure 4.6 shows, exclamations with *qué* are dependent on IL contexts for *ser* to be elicited, similarly, predicative complements with the verb *ver* 'to see' requires SL contexts for *estar* to be elicited. Furthermore, each comment is also reinforced by a tag question (e.g. *¿No?*), a question (e.g. *¿Comes bien?* 'Do you eat well?') or an exclamation (e.g. *¡Pareces otra persona!* You look like another person!).

Individual-Level contexts	*¡Qué alegre, Juan! ¿No?* What a cheerful person Juan (is), isn't he?
Stage-Level contexts	*Te veo muy alegre. ¡Pareces otra persona!* You look very cheerful, to me. You look like another person!

Figure 4.6: IL and SL constructions included for the oral production task

The procedure of this oral production task required that participants read the background contexts to themselves (see Figures 4.7 and 4.8), once they had finished the researcher asked them a question about which property was highlighted in the comment. Participants were instructed to answer using the adjective provided in the green box.

<table>
<tr><td colspan="3">Juan has an engaging personality. Everyone gets on well with him because he has a great sense of humour.

After a week working with Juan, Rafael comments to another colleague:</td></tr>
<tr><td>*¡Qué*</td><td>**alegre,**

happy</td><td>*Juan! ¿no?*</td></tr>
</table>

¿Qué destaca Rafael de Juan?
What does Rafael highlight about Juan?

Possible response: Destaca que Juan es alegre.
                    She highlights that Juan is happy.

Figure 4.7: Sample of an IL context for the oral production task

<table>
<tr><td colspan="3">After working abroad for many years, Paula has decided to go back to Madrid, her home town. She has found an exciting job there.

Her best friend in London tells her:</td></tr>
<tr><td>*¡Te veo muy*</td><td>**alegre!**

happy</td><td>*¡Pareces otra persona!*</td></tr>
</table>

¿Qué destaca la amiga de Paula?
What does the friend highlight about Paula?

Possible response: **Destaca que Paula está alegre.**
                    He highlights that Paula is happy.

Figure 4.8: Sample of a SL context for the oral production task

4.2.4 Results from pilot study

Here I briefly summarise the results of the pilot study. Overall, monolingual native Spanish speakers confirmed the copular distribution with IL (only-*ser*) adjectives (e.g. *sabio* 'wise'), SL (only-*estar*) adjectives (e.g. *vacío* 'empty') and dual adjectives (e.g. *atento* 'attentive/focused'). For the first comprehension task, participants unanimously rated *ser* with IL (only-*ser*) adjectives and *estar* with SL (only-*estar*) adjectives as grammatical, irrespective of the type of subject (animate or inanimate). Similarly, for the second comprehension task they also unanimously accepted copular clauses with *ser* for IL contexts and *estar* for SL contexts. No major differences were found with respect to the three types of dual adjectives. With regards to their level of rejection, participants

were not as categorical in their ratings as they were for their level of acceptance.

As for the production task with dual adjectives, natives confirmed that the type of context plays a crucial factor in the copular alternation. Participants displayed a consistent pattern in their copular selection and generally produced *ser* for IL contexts and *estar* for SL contexts.

4.2.5 Lessons learned from the pilot study

The pilot study not only attested to the reliability of our three elicitation tasks but also contributed to the refinement of the final research design. Specifically, I inverted the task order to avoid unintentional priming effects on the participants; hence, for the final experimental study the oral production tasks preceded the written comprehension tasks. With respect to the production, I created a new task that also tests IL (only-*ser*) and SL (only-*estar*) adjectives orally. Having this extra task allowed me to compare the comprehension and production results more systematically and in doing so, we will gain a deeper insight into the participants' mental representation. Similarly, I refined the comments for the oral production task with dual adjectives. Instead of associating only one construction to *ser* and one construction to *estar,* to be more efficient, two constructions were associated with each context. As Figure 4.9 shows, IL contexts were paired with exclamations or small clause complements with the verb *parecer* 'to seem'. Similarly, SL contexts were alternated with object predicative complements of the perception verbs *ver* 'to see' or *notar* 'to note'. Recall that these constructions depend on the type of context to elicit *ser* (IL contexts) and *estar* (SL contexts).

Individual-Level contexts	*Exclamations with qué*	*¡Qué amable, Juan!* What a kind person Juan is!
	Small clauses	*Pedro me parece muy alegre.* Pedro seems very cheerful.
Stage-Level contexts	*Object predicative complements*	*Veo a María muy amable.* To me María looks very kind.
	Object predicative complements	*Noto a Pedro muy alegre.* To me Pedro looks very cheerful.

Figure 4.9: IL/SL constructions included in the oral production task

As for the adjectival predicates, for the final study I maintained the same dual dependent-stage adjectives of physical appearance (e.g., *viejo* 'old') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (Marín, 2010) that I had used for the pilot; however, I selected a new set of dual dependent-stage of disposition adjectives according to high frequency. I removed those adjectives that have been lexicalized, such as *atento* 'attentive/focused'. Similarly, I restricted to the study of copular clauses with animate subjects across all tasks. For this reason inanimate subjects (e.g. *la maleta* 'the suitcase') were excluded from the comprehension task with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives.

The next step was to create the English version of the final research study. As this is a cross-sectional study, in order to guarantee the comprehension of all participants I decided to offer translations of the background contexts, the prompt questions and the adjectives being tested. This process also led me to reconsider the format of the oral production task with dual adjectives. Firstly, I decided not to offer a translation of the IL or SL comments since in many cases there are no direct translations, or some require the presence of the copula *be* in English and it may therefore interfere in the learners' comprehension or unintentionally favour the *ser* selection due to the similarity between *is* and *es*. Secondly, for the same reason, I decided to remove tag questions, questions and exclamations that formed part of the comments (see Figure 4.6). Thirdly, I reformulated the researcher's questions in order to prompt a more natural answer from all participants, from beginners to advanced learners. As can be seen from Figure 4.10, I converted the previous prompt question into a reported question that enquires as to what a third character says.

Pilot study	Prompt question	*¿Qué destaca el amigo de Juan?* What does the friend highlight about Juan?
	Possible responses	Destaca que Juan **es** viejo. (S/He) highlights that Juan is$_{SER}$ old.
		Destaca que Juan **está** viejo. (S/He) highlights that Juan is$_{ESTAR}$ old.
Final experimental study	Prompt question	*¿Qué dice el amigo de Ana?* What does Ana's friend say about her?
	Possible responses	Dice que Ana **es** nerviosa. (S/He) says that Ana is$_{SER}$ nervous.
		Dice que Ana **está** viejo. (S/He) says that Ana is$_{ESTAR}$ nervous.

Figure 4.10: Prompt questions included in the oral production tasks of the pilot and final study

4.3 The final experimental study

The next section details the final, and novel, research design employed for this experimental study. Prior to the final data collection, the elicitation tasks were tested again with two English-speaking L2 learners and nine native Spanish speakers. In the section that follows I will describe both the participants and the four elicitation tasks.

4.3.1 Participants

Seventy-one English-speaking adult learners of Spanish, as well as twenty-five native Spanish speakers took part in this research study. Participants were enrolled at a British university where they received between three to five hours of weekly instruction in Spanish. Twenty-eight undergraduates were from the University of Greenwich, nineteen from London School of Economics, thirteen from the University College of London, four from the University of Surrey, one from the University of Aberdeen and one from the University of Birmingham. In the case of the native control group, twenty-three were undergraduate students at the *Universidad de Castilla-La Mancha* and two were lecturers, both with a doctorate.

The independent placement test designed by the *Cervantes Institute*[17] was administered as a measure to classify L2 learners according to their levels of language proficiency. This is an online test that consists of three parts: 30–60 multiple-choice sentences that assess the participant's syntax and vocabulary, a reading comprehension activity and a listening comprehension activity. Depending on the number of right responses, the test would vary the number of items to be tested, as well as the difficulty in reading and listening activities. Following the Common European Framework of Reference for Languages (CERFL), seventeen beginners (A1-A2), thirty intermediate learners (B1-B2) and twenty-four advanced learners (C1) were identified for this research project.

The recruitment of the participants was specifically targeted at undergraduate students whose first L2 was Spanish. They were recruited thanks to their Spanish lecturers who kindly let us introduce the project in class. Participants completed the study individually in a quiet study area in their university. The tasks took them approximately an hour, but there was no time limit given. Details of the age of the participants, sex and length of classroom instruction in Spanish are summarised in Tables 4.1–4.3.

	N	Minimum	Maximum	Mean	Std. Deviation
Beginners A1-A2	17	18	23	19.65	1.367
Intermediate learners B1-B2	30	18	33	21.30	2.855
Advanced learners C1	24	19	23	21.29	1.083
Native control group	25	20	38	26.16	5.37

Table 4.1: Age of the participants

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[17] The Cervantes Institute is an official organisation created by the Spanish government in order to promote the study of the Spanish language and culture. They design and administer the official examinations for non-native Spanish speakers. Below is the link to the placement test that we used for our study: http://ave.cervantes.es/prueba_nivel/default.htm

	Male	Female	Percentage of male participants	Percentage of female participants
Beginners A1-A2	6	11	35%	65%
Intermediate learners B1-B2	10	20	33%	67%
Advanced learners C1	11	13	46%	54%
Native control group	8	17	32%	68%

Table 4.2: Sex of the participants

	N	Minimum	Maximum	Mean	Std. Deviation
Beginners A1-A2	17	.2	8.0	2.284	2.7438
Intermediate learners B1-B2	30	.2	10.0	4.433	2.8260
Advanced learners C1	24	4.0	16.0	8.583	2.2442
Native control group	25	20.0	38.0	26.160	5.7131

Table 4.3: Years of formal instruction in Spanish

The recruitment of native participants was also targeted at Spanish monolingual undergraduates. They were all from the central area of Spain, which is representative of standard Peninsular Spanish. More than half of the participants came from Toledo (64%) where data was collected, but also from Madrid, Ciudad Real, Badajoz, Cuenca and Murcia (see Table 4.4). Bilinguals of Spanish and Basque, Catalan or Galician were not considered for this research study.

	N	Percentage
Badajoz	1	4%
Ciudad Real	2	8%
Cuenca	1	4%
Madrid	4	16%
Murcia	1	4%
Toledo	16	64%

Table 4.4: Origin of native control group by province

4.3.2 Task design: description and novelty

The novel design of the final study consisted of four elicitation tasks: two oral production tasks and two written comprehension tasks (see Figure 4.10). The oral production task preceded the written one. This task order was chosen to avoid priming the participants.

Each task tests the participant's knowledge of copular clauses with adjectival phrases. Tasks 1 and 4 assessed L2 knowledge when the copular distribution is governed by the syntactic properties of the copulas themselves. Tasks 2 and 3 evaluate L2 knowledge when the copulas alternate according to the discursive information. As shown in Figure 4.12, tasks 1 and 4 were modelled on twelve adjectives, all of which have a fixed syntactic distribution (six IL (only-*ser*) adjectives such as *famoso* 'famous' and six SL (only-*estar*) adjectives such as *contento* 'happy'), whereas tasks 2 and 3 contained eighteen dual adjectives that were presented in IL and SL contexts. To specify, the tasks contain six dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), six dual dependent-stage of disposition (e.g. *amable* 'kind') and six dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). The advantage of this novel task design is that it accounts consistently not only for the oral performance but also for the comprehension of copular clauses in contrasting discursive contexts.

ORAL PRODUCTION	WRITTEN COMPREHENSION
Task 1: Oral production task 12 tokens 6 IL (only-*ser*) adjectives (e.g. *famoso* 'famous') 6 SL (only-*estar*) adjectives (e.g. *contento* 'happy')	**Task 4: Written comprehension task** 24 tokens 6 IL(only-*ser*) adjectives (e.g. *famoso* 'famous') 6 SL(only-*estar*) adjectives (e.g. *contento* 'happy')
Task 2: Oral production task 36 tokens 6 dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') 6 dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') 6 dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	**Task 3: Written comprehension task** 72 tokens 6 dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') 6 dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') 6 dual self-standing stage adjectives (e.g. *nervioso* 'nervous')

Figure 4.11: Task design for the final experimental study

Tasks were carefully designed to elicit the forms of the verbs in the Present tense, namely, *es* 'is$_{SER}$' and *está* 'is$_{ESTAR}$'. The purpose was to reduce the cases of morphological variability regarding aspect and tense agreement. To this end, the prompt questions and copular clauses being tested involved a subject in the third person (with male and female subjects equally represented). In the case of dual adjectives, background contexts were specifically set up to portray the IL and SL distinction. Each background context revolved around a new character in isolation. Unlike other studies on the L2 acquisition of copular clauses (Geeslin, 1999; Geeslin and Guijarro, 2006; Woolsey, 2008, among others) that use a story with two main characters, this decision allowed us to portray the semantic contrast that copulas convey more efficiently, while at the same time guaranteeing that the participant would not make inferences nor anticipate conclusions on how a character would react in a certain situation. In the following sections, I describe in detail the written comprehension and oral production tasks.

IL (only-*ser*) adjectives	*alérgico* 'allergic', *bilingüe* 'bilingual', *culpable* 'guilty', *extranjera* 'foreign', *famoso* 'famous' and *vegetariana* 'vegetarian'
SL (only-*estar*) adjectives	*borracha* 'drunk', *contento* 'happy', *desnudo* 'naked', *furiosa* 'furious', *enfermo* 'sick' and *sola* 'alone'
dual dependent-stage adjectives of physical appearance	*delgado* 'slim', *feo* 'ugly', *guapo* 'handsome/pretty', *grande* 'big', *joven* 'young', *viejo* 'old'
dual dependent-stage adjectives of disposition	*amable* 'kind', *generoso* 'generous', *raro* 'weird', *serio* 'serious', *tonto* 'silly', *vago* 'lazy'
dual self-standing stage adjectives	*alegre* 'cheerful', *feliz* 'happy', *nervioso* 'nervous', *inquieto* 'restless', *intranquilo* 'restless', *tranquilo* 'calm'

Figure 4.12: List of adjectives used for the final experimental study

4.3.2.1 Focused oral production tasks

The focused oral production tasks tested the participant's performance with *ser* and *estar* in adjectival constructions. One task tested adjectival constructions that allowed for one copular verb only and the other task tested adjectival constructions where both copulas were possible. To be consistent in our task design, all oral production materials consisted of elicitation cards that contained the same thirty adjectives as the ones used in tasks 3 and 4. Likewise, to avoid any sort of bias towards one copular verb or the other, two examples (one with *ser* and another with *estar*) were used at the beginning of the study to illustrate the procedure of the task. Both tasks were audio-recorded.

4.3.2.1.1 Oral production task with IL (only-ser) adjectives and SL (only-estar) adjectives

This task focused on those adjectival phrases where the copular distribution is obligatory. For this purpose, six IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and six

SL (only-*estar*) adjectives (e.g. *contento* 'happy') (see Table 4.5) were individually paired with an elicitation question. As shown in the examples below (see Figures 4.13 and 4.15), question cards enquire about a situation that involves a third animated subject (with females and males evenly distributed). They do not contain a copular verb and are all headed by the interrogative adverb *por qué* 'why'. Crucially, the question in the prompt never contains any form of the Spanish copular verbs. After having listened to the question that the researcher read out loud to them in Spanish, the participant was instructed to give an answer using the adjective given in the blue box (see Figures 4.14 and 4.16). Participants were not explicitly informed that they had to form copular clauses for their answers. Moreover, the order of the test items was randomised and translations of the prompt questions and the adjectives being tested were provided to ensure the comprehension of all participants, especially learners at lower levels (see Appendix B.3).

¿Por qué reconoce la gente a Miguel por la calle? Why do people recognise Miguel on the street?	***famoso*** *famous*

Figure 4.13: Elicitation question with an IL (only-*ser*) adjective

Grammatical sentence with *ser*	*Porque Miguel es famoso.* Because Miguel **be**SER-PRESENT-3SG famous. 'Because Miguel is famous'.
Ungrammatical sentence with *estar*	**Porque Miguel está famoso.* Because Miguel **be**ESTAR-PRESENT-3SG famous. 'Because Miguel is famous'.

Figure 4.14: Possible grammatical and ungrammatical responses to the elicitation question in Figure 4.13

¿Por qué no se cambia de trabajo Fernando? Why doesn't Fernando change jobs?	***contento*** *happy*

Figure 4.15: Elicitation question with a SL(only-*estar*) adjective

Grammatical sentence with *estar*	*Porque Fernando está contento.* Because Fernando **be**_{ESTAR-PRESENT-3SG} happy. 'Because Fernando is happy'
Ungrammatical sentence with *ser*	**Porque Fernando es contento.* Because Fernando **be**_{SER-PRESENT-3SG} happy. 'Because Fernando is happy'

Figure 4.16: Possible grammatical and ungrammatical responses to the elicitation question in
        Figure 4.15

4.3.2.1.2 Oral production task with dual adjectives

In this task the L2 learner is asked to read a context and a comment out loud. Once they have finished reading, the researcher asks a question in Spanish about what has been said about the main character and the participant needs to answer using the dual adjective provided in the green box (see Figures 4.17–4.18). To ensure learners' comprehension, the contexts were written in English but the comments were in Spanish. As explained above, the novelty of this task is that it includes syntactic constructions which, while lacking a copular verb, depend on the discursive context to give rise to the same semantic contrast as *ser* and *estar* (Figure 4.19). The syntactic structures used to elicit *ser* were small clause complements of the semi-copular verb *parecer* 'to seem' (see Figure 4.17) and exclamations with *qué* 'what' (Figure 4.20). The constructions used to elicit *estar* were object predicative complements with perception verbs such as *ver* 'to see' and *notar* 'to notice' (see Figures 4.18 and 4.21). Each construction was paired with a different type of context, namely exclamations with *qué* and clauses with *parecer* which alternate with IL contexts, whereas predicative complements appear as comments in SL contexts (see Appendix B.4).

Roberto has a very peculiar personality. He won't acknowledge you if you meet him in the street even if you have known him for years.

One of his colleagues makes the following comment:

Roberto me parece muy **raro.**

weird

¿Qué dice el compañero de Roberto?

What does Roberto's colleague say about him?

Dice que…

He says that…

Figure 4.17: Example of an IL context with a dual dependent-stage adjective of disposition

David's school grades have become considerably worse. He has gone from producing excellent work to not doing his homework at all. Lately, he has even been misbehaving in class.

His teacher is going to call his parents to say:

Noto a David muy **raro**

weird

¿Qué dice el profesor de David?

What does David's teacher say about him?

Dice que…

He says that…

Figure 4.18: Example of a SL context with a dual dependent-stage adjective of disposition

Individual-Level contexts	*Exclamations with qué*	*¡Qué inquieta, Cristina!* What a restless person Cristina (is)!
	Small clauses	*Roberto me parece muy raro.* Roberto seems very weird.
Stage-Level contexts	*Predicative complements*	*Veo a Eduardo muy tranquilo.* To me, Eduardo looks very weird.
	Predicative complements	*Noto a David muy inquieto.* To me, María looks very restless.

Figure 4.19: IL/SL constructions included in the oral production task

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Like the majority of children, Cristina has a lot of energy and can't sit still. She usually makes a lot of noise when she plays. So, her grandmother exclaims:

¡Qué	inquieta,	Cristina!
	restless	

¿Qué dice la abuela de Cristina?

What does Cristina's grandmother say about her?

Dice que…

She says that…

Figure 4.20: Example of an IL context with a dual self-standing stage adjective

Since Eduardo was chosen to compete on a TV quiz show, he can't sleep and spends his nights getting ready for it. He is afraid that his mind will go blank.

Eduardo's father says:

Veo a Eduardo muy	inquieto.
	restless

¿Qué dice el padre de Eduardo?

What does Eduardo's father say about him?

Dice que…

He says that…

Figure 4.21: Example of SL with a dual self-standing stage adjective

Brief background contexts were employed to depict IL/SL distinction. IL contexts contained others' opinions about the subject (e.g. *Arturo's colleagues say, all his students say, Iván's teacher says,* etc.) that help to classify him or her among a class. Temporal adverbials that make reference to permanency (e.g. *always*) were deliberately excluded. However, as *estar* yields an interpretation that takes into account the property in reference to a circumstance (Arche, 2006 and Arche *et al*., to appear), I included temporal adverbials such as *hoy* 'today', *últimamente* 'lately' and *desde* 'since' in SL contexts (see Figure 4.22). The numbers indicate the item's position in the test.

	Temporal adverbial			
	today	on a specific day	lately	since
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	(30) *guapa* 'pretty' (33) *joven* 'young'	(17) *grande* 'big'		(22) *delgada* 'slim' (36) *feo* 'ugly'
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	(24) *vaga* 'lazy'	(15) *serio* 'serious'	(12) *raro* 'weird' (11) *tonta* 'silly'	(20) *amable* 'kind' (27) *generoso* 'generous'
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	(25) *feliz* 'happy' (4) *tranquilo* 'calm'		(32) *alegre* 'cheerful' (8) *nervioso* 'nervous'	(19) *inquieto* 'restless' (2) *intranquila* 'restless'

Figure 4.22: Temporal adverbials included in the SL contexts of the focused oral comprehension task with dual adjectives.

4.3.2.2 Focused written comprehension tasks

The focused written comprehension tasks measured the participant's language comprehension with *ser* and *estar* in adjectival constructions where only one copula was grammatical, as well as adjectival constructions were both copular verbs were possible. The purpose is to tap into the mental representation of copular clauses with adjectival phrases at different levels of the language proficiency. These tasks assessed whether L2 learners had acquired the syntactic properties, as well as the discursive ones, associated with each copular verb. To this end, a five-point Likert scale was used to measure the participant's level of assertiveness regarding the acceptance of felicitous

combinations and the rejection of infelicitous ones, as well as whether the participant was able to identify the semantic contrast that copular verbs give rise to in contrasting discursive contexts. Given that both tasks were self-paced and pencil-and-paper based, participants were instructed not to go back and make further changes. This was for two reasons: one, to avoid the participants from correcting themselves since they were being presented with the same adjectives combined with the two copular verbs at different moments of the test; and two, to maximize the capture of intuitive response as much as possible.

4.3.2.2.1 Written comprehension task with IL (only-ser) adjectives and SL (only-estar) adjectives

In this task twelve adjectives that have a fixed syntactic distribution (six IL (only-*ser*) adjectives such as *famoso* 'famous' that are exclusively compatible with *ser* and six SL (only-*estar*) adjectives such as *solo* 'alone' that are compatible with *estar*) were combined with both copular verbs, to form grammatical and ungrammatical pairs. The order of presentation was randomised. Participants were asked to judge the grammaticality of these twenty-four copular clauses on a scale. The numerical values represent the following responses: very bad (-2), bad (-1), neutral (0), good (+1) and very good (+2). To illustrate this, note that copular clauses (9) and (11) are grammatical whereas (10) and (12) are ungrammatical (see appendix B.5).

(9) *Eva* **es** *famosa.*   Grammatical clause with *ser*
   Eva **be**_{SER-PRESENT- 3SG} famous.
   'Eva is famous.'

(10) **David* **está** *famoso.*   Ungrammatical clause with *estar*
   David **be**_{ESTAR-PRESENT- 3SG} famous.
   'David is famous.'

(11) *Eva* **está** *sola.*   Grammatical clause with *estar*
   Eva **be**_{ESTAR-PRESENT- 3SG} alone.
   'Eva is alone.'

(12) **David* **es** *solo.*   Ungrammatical clause with *ser*
   David **be**_{SER-PRESENT- 3SG} alone.
   'David is alone.'

Participants were explicitly instructed not to add anything that could make the sentence grammatically correct. Note that a SL (only-*estar*) adjective such as *enfermo* 'ill' or *borracho* 'drunk' coincides in form with the noun; hence, just by adding a determiner, the adjectival phrase becomes a determiner phrase which is well-formed only with *ser* (compare (13) and (14)).

(13) *Laura *es/__está__ borracha/enferma.*
　　　Laura **be**_{SER/ESTAR-PRESENT-3SG} drunk/ill.
　　　'Laura is drunk/ill.

(14) *Laura __es__/*está una borracha/enferma.*
　　　Laura **be**_{SER/ESTAR-PRESENT-3SG} a drunk/ill.
　　　'Laura is a drunk person/sick patient'.

In this regard, the results from the control group allowed us to gain a deeper understanding of the extent to which native speakers can force a reading with *ser* or *estar* in combination with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives. Much has been written in theoretical linguistics about the exclusive, coercive force of *estar*. In particular, Escandell Vidal and Leonetti (2002), among others, claim that *estar* can coerce IL (only-*ser*) adjectives into a SL predicate. If this were the case, we would expect native speakers to be less prone to reject *estar* with IL (only-*ser*) adjectives than *ser* with SL (only-*estar*) adjectives.

4.3.2.2.2 Written comprehension with dual adjectives

In this task the participant was asked to rate the adequacy of pairs of copular clauses according to the discursive context provided on a scale. Thirty-six contexts were specifically created, eighteen of which depicted an IL property (i.e. they described properties that a subject possesses), while the other eighteen contexts portrayed a SL property (i.e. they portrayed a property in relation to a circumstance). Examples of IL and SL contexts in combination with a dual dependent-stage adjective of physical appearance (e.g. *vieja* 'old'), a dual dependent-stage adjective of disposition (e.g. *amable* 'kind') and a dual self-standing stage adjective (e.g. *alegre* 'cheerful') are presented in Figures 4.23–4.28 (see also appendix B.5).

My neighbour Cristina has just turned 90 years old and has an enviable health.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Cristina es vieja. *old.*	-2	-1	0	+1	+2
2. Cristina está vieja. *old.*	-2	-1	0	+1	+2

Figure 4.23: Context portraying an IL property with a dual dependent-stage adjective of physical appearance

Due to a rare skin disease, Laura looks older than her actual age.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Laura es vieja. *old.*	-2	-1	0	+1	+2
2. Laura está vieja. *old.*	-2	-1	0	+1	+2

Figure 4.24: Context portraying a SL property with a dual dependent-stage adjective of physical appearance

All his students love Carlos because he treats them with respect and because he thinks of their needs.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Carlos es amable. *kind.*	-2	-1	0	+1	+2
2. Carlos está amable. *kind.*	-2	-1	0	+1	+2

Figure 4.25: Context portraying an IL property with a dual dependent-stage adjective of disposition

The security guard where Luis works answers rudely if you ask him something. He has a difficult character but since he was told that if he carried on this way he would be dismissed, he seems like another person.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Diego es amable. *kind.*	-2	-1	0	+1	+2
2. Diego está amable. *kind.*	-2	-1	0	+1	+2

Figure 4.26: Context portraying an IL property with a dual dependent-stage adjective of disposition

Everyone gets on well with Juan because he has such a positive, kind character.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Juan es alegre.* *cheerful.*	-2	-1	0	+1	+2
2. *Juan está alegre.* *cheerful .*	-2	-1	0	+1	+2

Figure 4.27: Context portraying an IL property with a dual self-standing stage adjective

Cristián's sister thinks that he has a girlfriend. Lately, he seems very pleased with himself.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Cristián es alegre.* *cheerful.*	-2	-1	0	+1	+2
2. *Cristián está alegre.* *cheerful.*	-2	-1	0	+1	+2

Figure 4.28: Context portraying a SL property with a dual self-standing stage adjective

The same criteria used for the oral production task with dual adjectives were employed to write the IL and SL contexts of this task. To clarify, temporal adverbs that indicate permanency (e.g. *siempre* 'always') were not included for IL contexts. However, as *estar* itself makes reference to a circumstance, temporal adverbials such as *hoy* 'today', *últimamente* 'lately' or temporal adverbials headed by the preposition *desde* 'since' were added to SL contexts (see Figure 4.29).

	Temporal adverbial			
	today	on a specific day	lately	since
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	(34) *guapo* 'handsome'	(18) *fea* 'ugly'	(23) *delgado* 'slim' (7) *grande* 'big'	(28) *intranquila* 'restless' (for a period of time)
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	(2) *seria* 'serious' (12) vago 'lazy'		(32) *amable* 'kind' (21) *generosa* 'generous' (4) *rara* 'weird'	(33) *tonto* 'silly'
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	(14) *feliz* 'happy' (6) *nerviosa* 'nervous'			(26) *alegre* 'cheerful' (36) *inquieta* 'restless' (9) *tranquila* 'calm'

Figure 4.29: Temporal adverbials included in the SL contexts of the written production task with dual adjectives.

Furthermore, it is noteworthy to point out that only the SL contexts for *vieja* 'old' and *joven* 'young' did not contain a temporal adverbial because its presence would make the context anomalous (see Figure 4.30).

My mother's name is Rosa and she does not look her age. People can't believe she has just turned seventy-five years old.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Rosa es joven.* *young.*	-2	-1	0	+1	+2
2. *Rosa está joven.* *young.*	-2	-1	0	+1	+2

Figure 4.30: Context portraying a SL property with a dual dependent-stage adjective of physical appearance

4.4 Analysis of results

In this section I present the results from this experimental study. Firstly, I report the results for the written comprehension tasks and subsequently, the ones from the oral production tasks. All statistical analyses have been conducted under the close advice of a statistical expert from the Department of Mathematical Sciences at the University of Greenwich.

4.4.1 Results of the focused written comprehension tasks

The responses obtained in the written comprehension tasks were counted and mean percentages were calculated for each possible option. Given that the data obtained by means of a Likert scale is ordinal (i.e. data which ranks an order of preference in a scale), options that were closer to each other were collapsed. For example, the results of higher and lower acceptance (responses +2 and +1) were combined into one category and a contingency table was made to compare this combined higher and lower acceptance variable with the rest of the other possible responses (neutral response (0), lower rejection (–1) and higher rejection (–2)). Similarly, higher and lower rejections

were collapsed into one category and a crosstabulation table was made with this combined rejection and the other three possible options (neutral response, lower and higher acceptance). The statistical analyses were carried out using the IBM SPSS Statistics (Version 21). Groups were compared within and between themselves using Pearson χ^2 tests.

4.4.1.1 Results of focused written comprehension task with IL (only-*ser*) and SL(only-*estar*) adjectives

4.4.1.1.1 Rating of grammatical sentences

I will first report the rating of grammatical copular sentences with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy'). Results show that differences between L2 groups are significant (for *ser* χ^2 value 21.850, p<.001; for *estar* χ^2 value 44.971, p<.001) (see Table 4.5). As Figures 20 and 21 illustrate, beginners accepted both copulas at a similar rate (78%[18] for *ser* and 73% for *estar*); however, intermediate learners improved their accuracy with *estar* (91%) considerably more than with *ser* (83%). Indeed, beginners and intermediate learners assigned a similar rating to copular clauses with *ser* (χ^2 value 1.040, p=.308) and differed significantly with *estar* (χ^2 value 15.741 p<.001). In contrast, advanced learners were as assertive as natives with both copular verbs. The χ^2 test confirms that advanced learners are firmer in their acceptance of *estar* than they are in their acceptance of *ser* (for *ser* χ^2 value 1.959, p=.162, for *estar* χ^2 value 1.045, p=.307) (see appendix C).
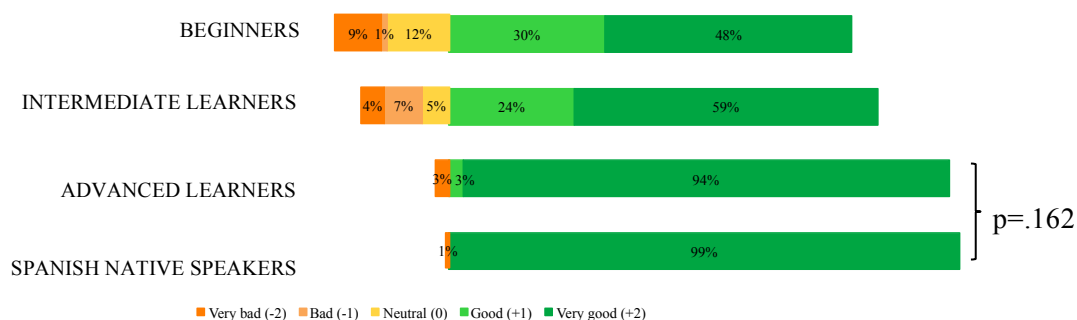
Figure 4.31: Mean percentages of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')

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[18] Percentages represented the combined acceptance, that is, the sum of the 'Very good' (+2) and 'Good' (+1) responses.
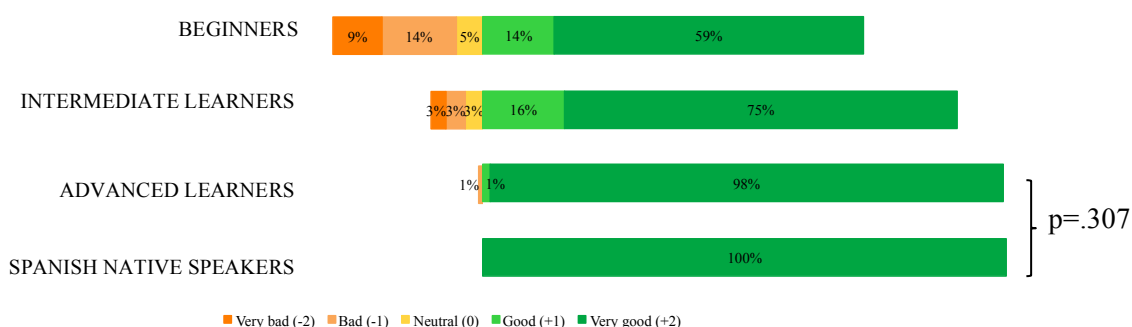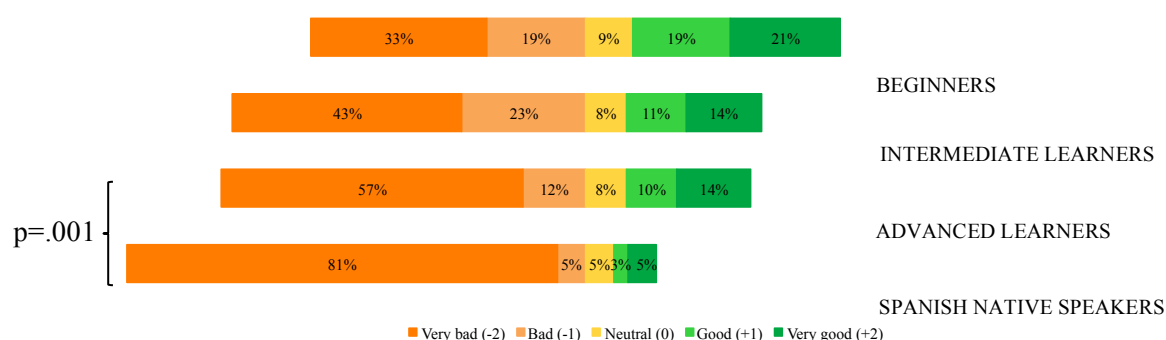
Figure 4.32: Mean percentages of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')

	Acceptance of *ser* with IL(only-*ser*) adjectives (e.g. *famoso* 'famous')		Acceptance of *estar* with SL(only-*estar*) adjectives (e.g. *contento* 'happy')	
	χ^2 value	*p*	χ^2 value	*p*
Comparison within L2 groups	21.850[a]	p<.001	44.971[a]	p<.001
Beginners vs. natives	31.982[a]	p<.001	46.324[a]	p<.001
Intermediate learners vs. natives	24.608[a]	p<.001	14.936[a]	p<.001
Advanced learners vs. natives	1.959[a]	p=.162	1.045[a]	p=.307

Table 4.5: Results of Pearson χ^2 tests. Comparisons within L2 groups and with native speakers

4.4.1.1.2 Rating of ungrammatical sentences

When the token presented an ungrammatical sentence of *ser* with SL (only-*estar*) adjectives or *estar* with IL (only-*ser*) adjectives, all L2 learners were substantially less confident in their rejection than natives (see Figures 4.33 and 4.34). By and large L2ers were more reluctant to reject *ser* than *estar*. A within-group comparison confirms that all L2 groups differed significantly from each other when rating *ser* with SL (only-*estar*) adjectives (χ^2 value 8.363 p=.015) as well as when rating *estar* with IL (only-*ser*) adjectives (χ^2 value 25.237 p<.001). The statistical difference among L2ers is more pronounced with *estar* than with *ser*.

All learners behaved more homogeneously with respect to the rejection of *ser* than with respect to the rejection of *estar*. Results show that advanced learners did not improve with respect to intermediate learners in their ratings of *ser* with SL (only-*estar*)

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adjectives (69%) (χ^2 value .159 p=.691); however, they developed substantially in their rejection of the ungrammatical combinations of *estar* and IL (only-*ser*) adjectives (χ^2 value 20.301 p<.001). Indeed, the rejection of *estar* is the only one that develops to a level of attainment closer to the natives (89%), but it must also be noted that the difference between advanced learners and natives is still statistically significant (χ^2 value 13.695 p<.001). In other words, all learner groups differed from natives in their rejection of ungrammatical choices with both copular verbs (p<.001) but advanced learners are notably more accurate rejecting *estar* than rejecting *ser*. Thus, learners at all levels of proficiency were more reluctant to reject ungrammatical combinations when *ser* is at stake.

Figure 4.33: Mean percentages of *ser* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')
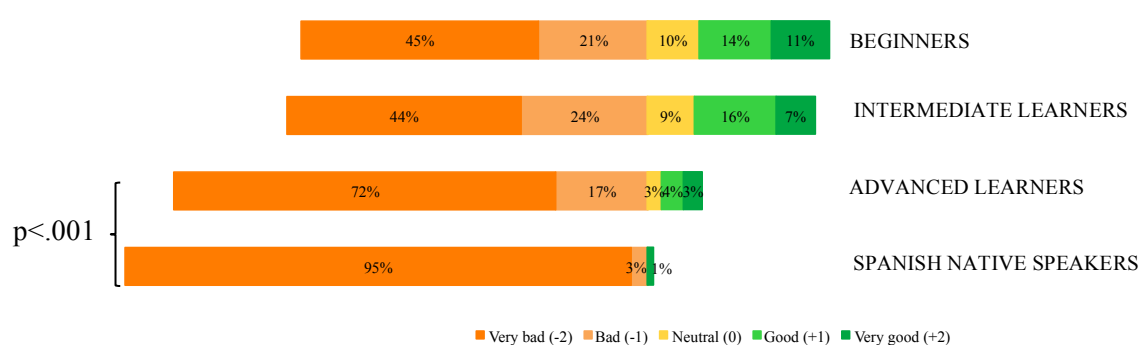
Figure 4.34: Mean percentages of *estar* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')

	Rejection of *ser* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')		Rejection of *estar* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	
	χ^2 value	*p*	χ^2 value	*p*
Comparison within L2 groups	8.363	p=.015	25.237	p<.001
Beginners vs. natives	52.719[a]	p<.001	36.779[a]	p<.001
Intermediate learners vs. natives	51.274[a]	p<.001	17.820[a]	p<.001
Advanced learners vs. natives	11.127[a]	p=.001	13.695[a]	p<.001

Table 4.6. Results of Pearson χ^2 tests. Comparisons within L2 groups and with native speakers

4.4.1.2 Results of focused written comprehension task with dual adjectives

Now I turn to the results of the adequacy ratings of pairs of copular clauses with dual adjectives that were presented in an IL context (i.e. a context that ascribes a property to the subject in and of itself) and a SL context (i.e. a context where a property holds true of the subject in a given circumstance). Three types of dual adjectives were considered for this task: six dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), six dual dependent-stage of disposition (e.g. *amable* 'kind') and six dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). As before, I first report the ratings of the felicitous combinations of *ser* in IL contexts and *estar* in SL contexts, and later, the infelicitous combinations of *ser* in SL contexts and *estar* in IL contexts.

4.4.1.2.1 Adequacy ratings of ser in IL contexts

Overall, the rate of acceptance of felicitous combinations of *ser* in IL contexts with all dual adjectives is consistently high (above 80% of combined acceptance). Figures 4.35–4.37 show that L2 learners became more assertive as their level of language proficiency increased. Beginners ranged from 81% to 87% of correct acceptance, intermediate learners between 89% to 94% and advanced learners between 94% to 97%. While all results were very high, a comparison between the three L2 groups confirms that they are statistically different (see Table 4.7). Indeed, when L2 groups are compared among themselves, results reveal that while beginners and intermediate learners increased their

accuracy with *ser* and the two types of dual dependent-stage adjectives (e.g. *viejo* 'old' and *amable* 'kind') in a similar manner (p=.056 and p=.388), they differed with respect to dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (p=.002) (see Table 4.8). This occurs not only because intermediate and advanced learners resembled each other but also, and most importantly, because both L2 groups attained a native-like level in the acceptance of *ser* and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (p=.195 and p=.743) (see Table 4.9).
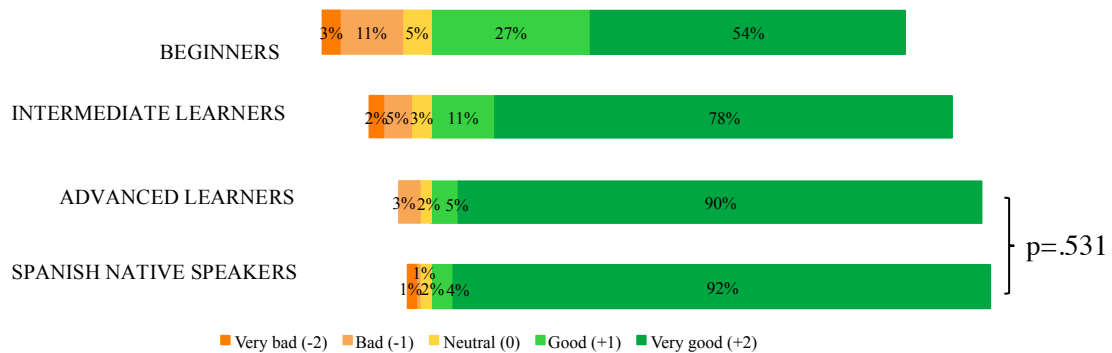
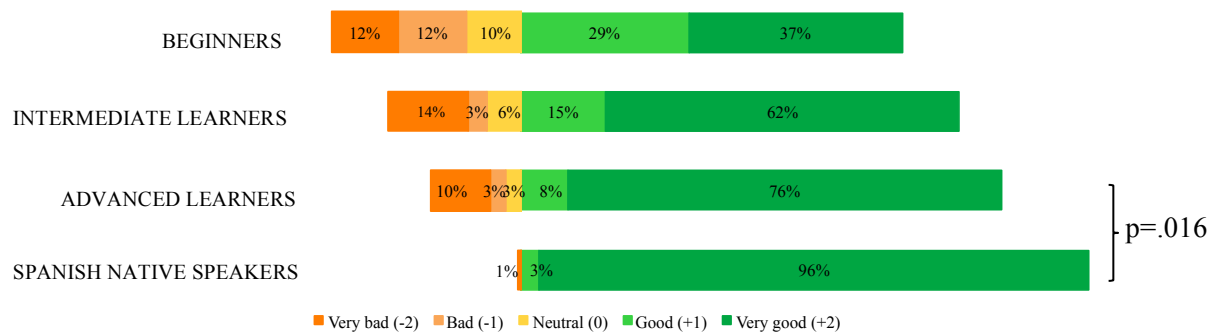Figure 4.35: Mean percentages of *ser* clauses with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts
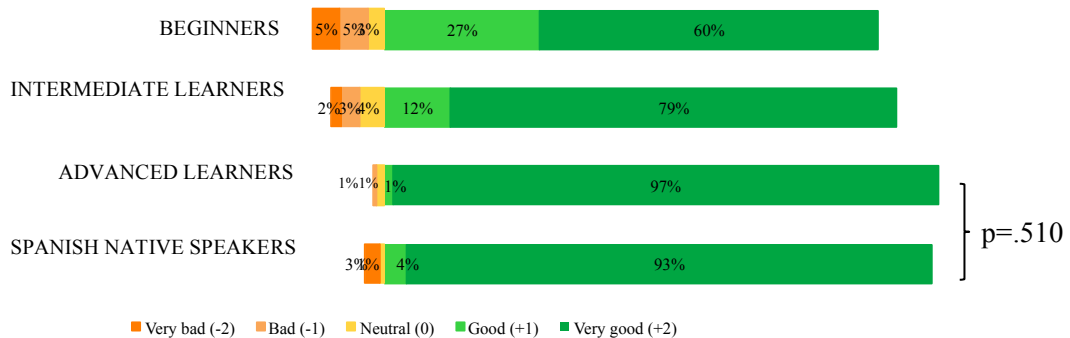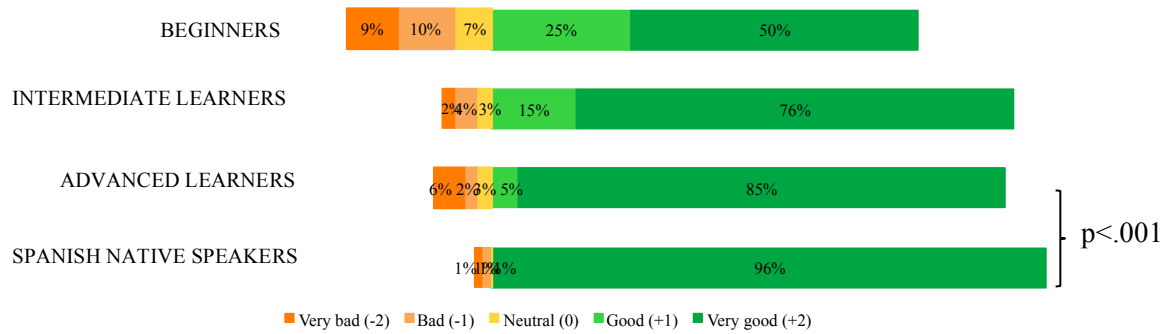

Figure 4.36: Mean percentages of *ser* clauses with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts
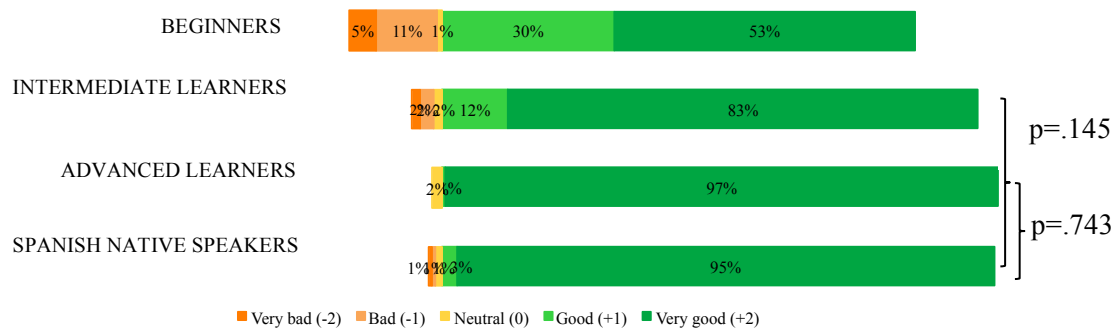
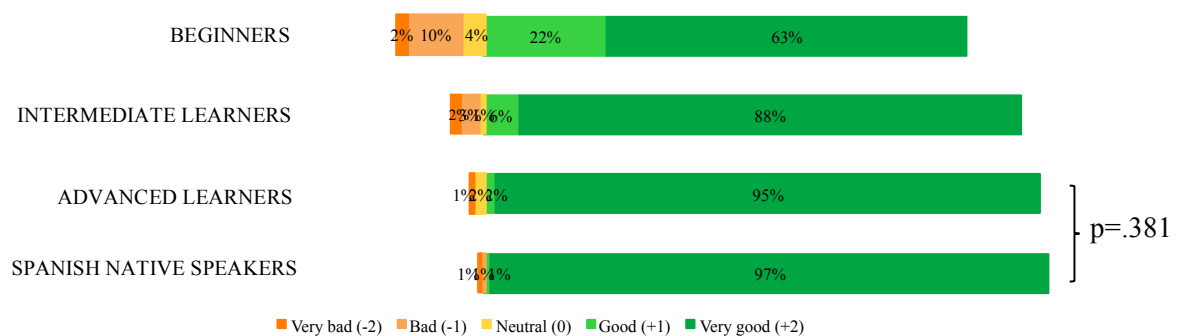
Figure 4.37: Mean percentages of *ser* clauses with dual self-stage adjectives (e.g. *nervioso* 'nervous') in IL contexts

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	Acceptance of *ser* in IL contexts	
	χ^2 value	*p*
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	10.611[a]	p= .005
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	10.755[a]	p= .005
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	20.450[a]	p<.001

Table 4.7: Results of Pearson χ^2 tests. Comparison of L2 groups when accepting *ser* for IL contexts

	Acceptance of *ser & * dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Acceptance of *ser & * dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Acceptance of *ser & * dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners & intermediate learners	3.638[a]	.056	.746[a]	.388	9.284[a]	.002
Beginners & advanced learners	10.442[a]	.001	11.161[a]	.001	17.001[a]	.000
Intermediate learners & advanced learners	2.618[a]	.106	7.485[a]	.006	2.504[a]	.114

Table 4.8: Results of Pearson χ^2 tests. Within-L2 group comparisons of *ser* in IL contexts

Finally, it is noteworthy that advanced learners behaved in a manner comparable to that of control subjects when rating the adequacy of *ser* in IL contexts with the three types of dual adjectives (p=.531, p=.510, and p=.743, respectively) (see Table 19).

	Acceptance of *ser &* dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Acceptance of *ser &* dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Acceptance of *ser &* dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	14.537[a]	p<.001	8.109[a]	p=.004	15.578[a]	p<.001
Intermediate learners vs. natives	5.022[a]	p=.025	4.911[a]	p=.027	1.681[a]	p=.195
Advanced learners vs. natives	.392[a]	p=.531	.434[a]	p=.510	.108[a]	p=.743

Table 4.9: Results of Pearson χ^2 tests. Between-comparisons of L2 groups with native speakers

4.4.2.2 Adequacy ratings of estar in SL contexts

All L2 groups recognised the adequacy of *estar* with dual adjectives in SL contexts at higher rates, although there exists a significant difference among them (see Table 4.10). Beginners' acceptance of *estar* in SL contexts was varied. They were particularly more likely to accept *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (85%) and with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (75%) than with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (67%) (see Figures 4.38–4.40). This tendency was strengthened at the intermediate level. Intermediate learners notably increased the level of acceptance of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (94%) and with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (91%), but they continued to exhibit a relatively low rate with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (77%). Furthermore, a within-comparison of intermediate and advanced learners shows that they resemble one another (p=.100, p=.642 and p=.156) (see Table 4.11). Indeed, advanced learners only achieved a rate comparable to that of natives with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (p=.381). In contrast, there are statistical differences with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (p=.016) and physical appearance (e.g. *viejo* 'old') (p<.001), although with the former the difference is smaller (see Table 4.12).
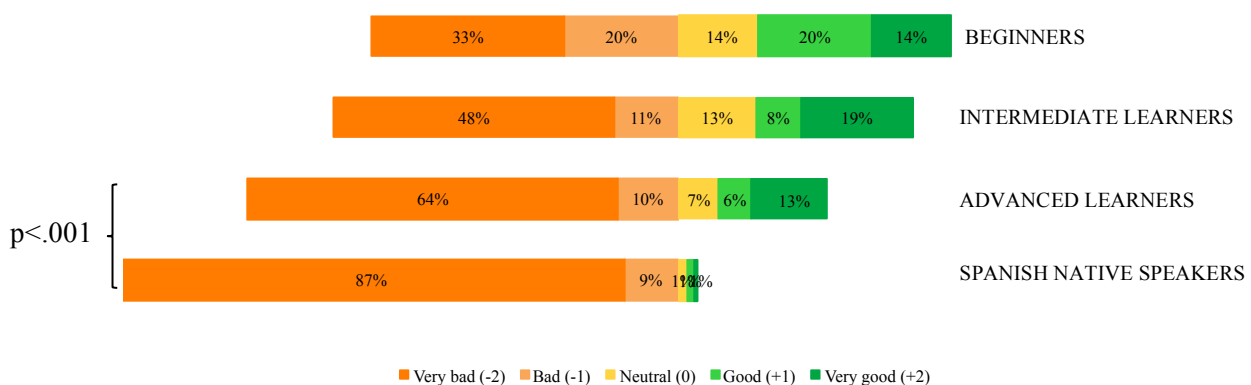
Figure 4.38: Mean percentages of *estar* clauses with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')
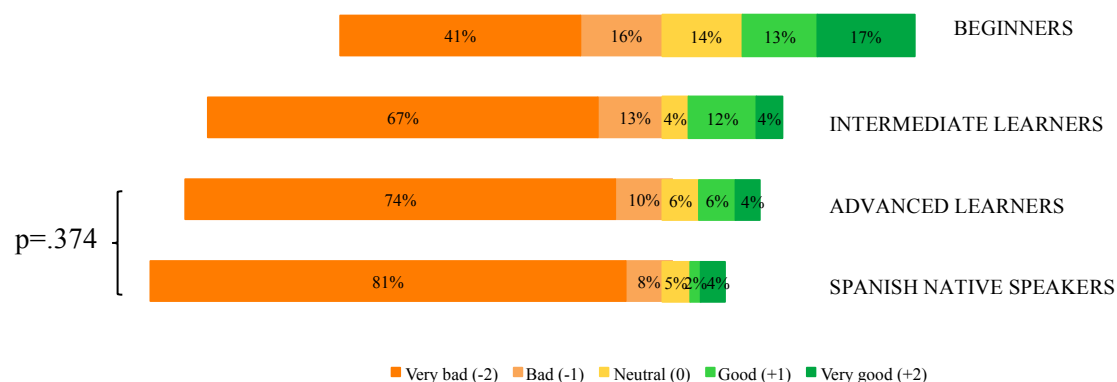

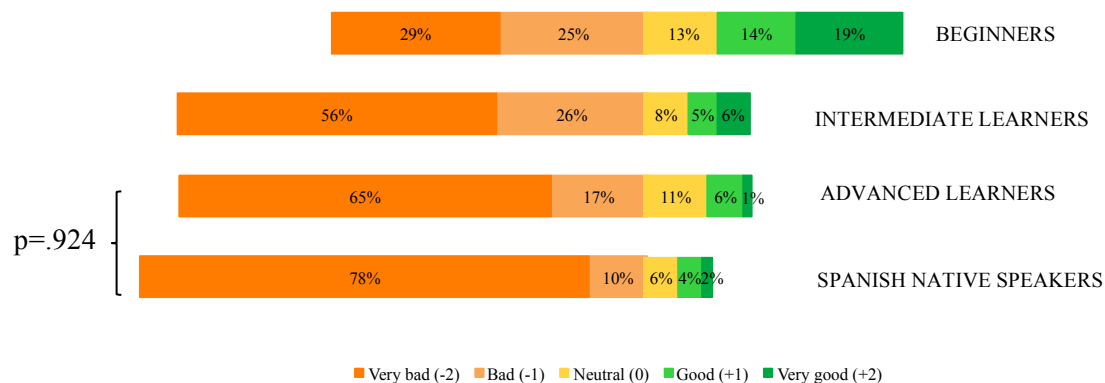Figure 4.39: Mean percentages of *estar* clauses with dual dependent-stage of disposition (e.g. *amable* 'kind') in SL contexts

Figure 4.40: Mean percentages of *estar* clauses with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts

	Acceptance of *estar* in SL contexts	
	χ^2 value	*p*
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	10.090[a]	p=.006
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	17.130[a]	p<.001
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	15.373[a]	p<.001

Table 4.10: Results of Pearson χ^2 tests. Comparison of L2 groups when accepting *estar* for SL contexts

	Acceptance of *estar &* dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Acceptance of *estar &* dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Acceptance of *estar &* dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners & intermediate learners	3.307[a]	.069	14.156[a]	p<.001	6.895[a]	p=.009
Beginners & advanced learners	10.109[a]	p=.001	9.768[a]	p=.002	13.320[a]	p<.001
Intermediate learners & advanced learners	2.703[a]	p=.100	.216[a]	.642	2.013[a]	.156

Table 4.11: Results of Pearson χ^2 tests. Within-L2 group comparisons of *estar* in SL contexts

	Acceptance of *estar &* dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Acceptance of *estar &* dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Acceptance of *estar &* dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	27.628[a]	p<.001	54.172[a]	p<.001	18.858[a]	p<.001
Intermediate learners vs. natives	4.238[a]	p=.040	37.094[a]	p<.001	4.935[a]	p=.026
Advanced learners vs. natives	5.814[a]	p=.016	22.957[a]	p<.001	.767[a]	p=.381

Table 4.12: Results of Pearson χ^2 tests. Between-comparison of L2 groups with native speakers

4.4.2.3 Adequacy rating of the infelicitous combination between ser and SL contexts

As graphs 4.41–4.43 show, L2 learners differed in their rejection rates of the infelicitous combination between a *ser* clause and a SL context (p<.001) (see Table 4.13). Although rejection is the most commonly chosen option, beginners were more ambivalent in their responses than intermediate and advanced learners. The beginners' mild rejection hovers around 50% with all types of dual adjectives, which suggests that they performed at chance and have a similar knowledge regardless of the type of dual adjective. In contrast, intermediate learners increased their accuracy greatly only with two types of dual adjectives, specifically with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (80%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (82%), even attaining with the latter adjectival group a level of rejection similar to that of the native group (p=.113) (see Table 4.15). Interestingly, intermediate learners remained at the same level as beginners with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (59%) (p=.289) (see Table 4.14). Additionally, a similar pattern was found among advanced learners. They showed a native level of rejection with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (84%) (p=.134) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (82%) (p.=108) but deviated with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (74%)(p<.001) (see Table 4.15). This finding shows that advanced learners are more reluctant to reject *ser* with dual adjectives which refer to physical appearance in SL contexts and this reluntance prevented them from reaching a native-like level.

Figure 4.41: Mean percentages of *ser* clauses with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts

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Figure 4.42: Mean percentages of *ser* clauses with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts

Figure 4.43: Mean percentages of *ser* clauses with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts

	Rejection of *ser* in SL contexts	
	χ^2 value	*p*
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	13.285	p<.001
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	25.336[a]	p<.001
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	29.329[a]	p<.001

Table 4.13: Results of Pearson χ^2 tests. Comparison of L2 groups when accepting *estar* for SL contexts

	Rejection of *ser* & dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Rejection of *ser* & dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Rejection of *ser* & dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. intermediate learners	1.124[a]	.289	16.216[a]	p<.001	23.127[a]	p<.001
Beginners vs. advanced learners	12.051[a]	p=.001	20.917[a]	p<.001	19.862[a]	p<.001
Intermediate learners vs. advanced learners	7.879[a]	p=.005	.792[a]	p=.374	.009[a]	.924

Table 4.14: Results of Pearson χ^2 tests. Within-L2 group comparison

	Rejection of *ser* & dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Rejection of *ser* & dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Rejection of *ser* & dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	69.893[a]	p<.001	35.287[a]	p<.001	35.104[a]	p<.001
Intermediate learners vs. natives	62.804[a]	p<.001	5.935[a]	p=.015	2.512[a]	p=.113
Advanced learners vs. natives	30.001[a]	p<.001	2.250[a]	p=.134	2.582[a]	p=.108

Table 4.15: Results of Pearson χ^2 tests. Between-comparison of L2 groups with native speakers

4.4.2.4 Adequacy rating of the infelicitous combination between estar and IL contexts

As can be seen in Figures 4.44–4.46, L2 learners differed significantly in their ratings of the infelicitous combinations between an *estar* clause and an IL context (p<.001) (see Table 4.16). Beginners proved to be as skillful in their rejection of *estar* in IL contexts as they were in rejecting *ser* in SL contexts. Initially their rejection was around 55%–61% which seems to suggest that they are likely to be performing at chance level. By contrast, intermediate learners improved substantially with dual self-standing stage adjectives (e.g. *nervioso* 'nervous'), but lagged behind with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') and those of disposition (e.g. *amable*

'kind'). As a result, a comparison between beginners and intermediate learners shows that they were homogeneous in their responses with dual dependent-stage adjectives such as *viejo* 'old' (p=.095) and *amable* 'kind' (p=.263), but deviated in a statistical manner with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (p=.001) (see Table 4.17). This shows that intermediate learners are aware of the infelicitous combination with the latter group at an earlier stage in the pathway of acquisition. Finally, these differences disappeared at the advanced level. Their level of rejection reached 86% with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'), 83% with those of disposition (e.g. *amable* 'kind') and 84% with dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). Indeed, advanced learners rejected *estar* in a manner comparable to that of natives with the three types of dual adjectives (p=.857, p=.061 and p=.754, respectively) (see Table 4.18).

Figure 4.44: Mean percentages of *estar* clauses with dual dependent-stage adjectives (e.g. *viejo* 'old') in IL contexts
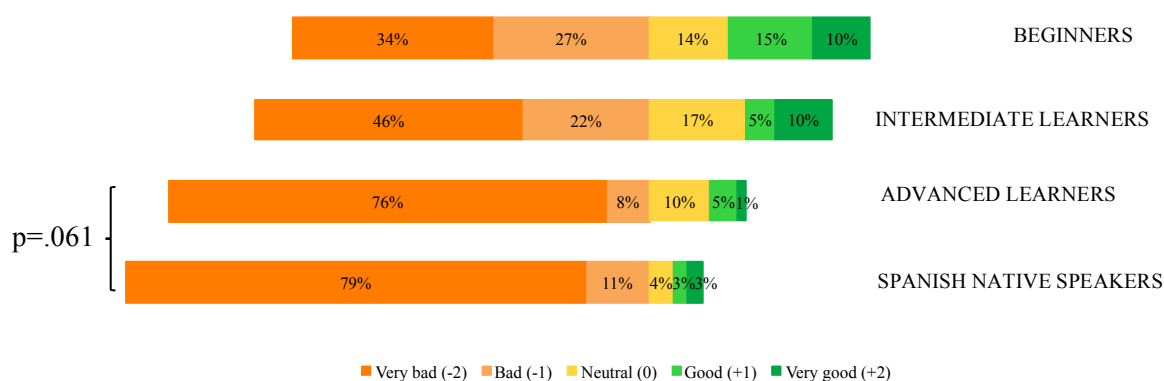
Figure 4.45: Mean percentages of *estar* clauses with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts
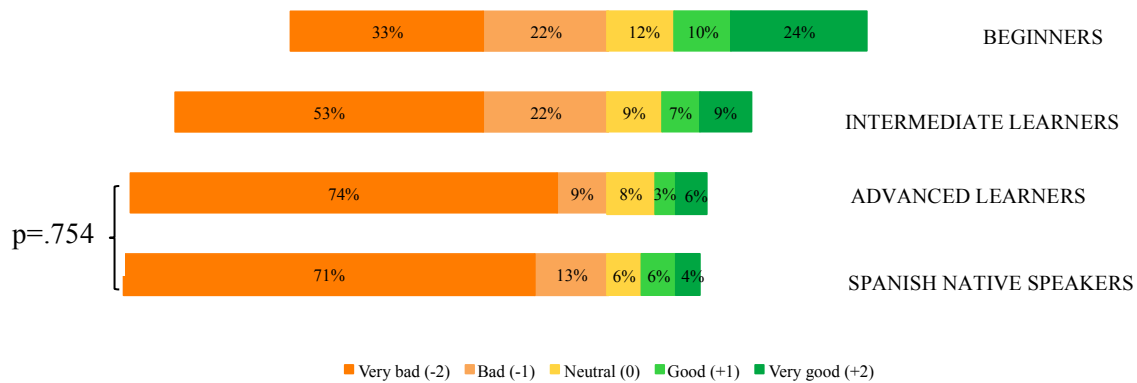
Figure 4.46: Mean percentages of *estar* clauses with dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts

	Rejection of *estar* in IL contexts	
	χ^2 value	*p*
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	24.171	p<.001
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')	15.612[a]	p<.001
Dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	23.964[a]	p<.001

Table 4.16: Results of Pearson χ^2 tests. Comparison of L2 groups when accepting *estar* for SL contexts

	Rejection of *estar* & dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Rejection of *estar* & dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Rejection of *estar* & dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. intermediate learners	2.795[a]	p=.095	1.251[a]	p=.263	12.032[a]	p=.001
Beginners vs. advanced learners	23.585[a]	p<.001	14.580[a]	p<.001	22.373[a]	p<.001
Intermediate learners vs. advanced learners	13.500[a]	p<.001	9.600[a]	p=.002	2.756[a]	p=.097

Table 4.17: Results of Pearson χ^2 tests. Within-L2 group comparison

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	Rejection of *estar &* dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Rejection of *estar &* dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Rejection of *estar &* dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	22.598[a]	p<.001	30.536[a]	p<.001	25.624[a]	p<.001
Intermediate learners vs. natives	12.601[a]	p<.001	24.167[a]	p<.001	4.007[a]	p=.045
Advanced learners vs. natives	.032[a]	p=.857	3.511[a]	p=.061	.098[a]	p=.754

Table 4.18: Results of Pearson χ^2 tests. Between-comparison of L2 groups with native speakers

4.4.2.5 Summary of results of two comprehension tasks with ser

The Table below summarises the results of the ratings of copular clauses with *ser* in the two comprehension tasks. Overall, L2 learners identified the grammaticality of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') in a similar manner as they recognised the appropriateness of this copula with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts. Proficiency plays a crucial role since learners increased their accuracy at higher levels. Moreover, it is worth noting that although advanced learners reached a native-like acceptance of *ser* with IL (only-*ser*) adjectives and dual adjectives, learners associated the felicitous combination of *ser* and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') that appeared in IL contexts at an earlier stage (the intermediate level).

SER	IL CONTEXTS			
	IL (only-*ser)* adjectives e.g. *famoso* 'famous'	Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 acceptance	Greater acceptance by L2ers (78%, 83% & 97%) and natives (99%)	Greater acceptance by L2ers (81%, 89% & 94%) and natives (96%)	Greater acceptance by L2ers (87%, 91% & 98%) and natives (97%)	Greater acceptance by L2ers (83%, 94% & 98%) and natives (97%)
Comparison between the three L2 groups	Statistical difference χ^2 value 21.850, p<.001	Statistical difference χ^2 value 10.611, p=.005	Statistical difference χ^2 value 10.755, p=.005	Statistical difference χ^2 value 20.450, p<.001
Comparison within L2 groups	Beginners and intermediate learners rate in a similar manner χ^2 value 1.040, p=.308	Beginners and intermediate learners rate in a similar manner χ^2 value 3.638, p=.056	Beginners and intermediate learners rate in a similar manner χ^2 value .746, p=.388	Beginners and intermediate learners statistically differ χ^2 value 9.284, p=.002
	Intermediate and advanced learners statistically differ χ^2 value 16.430, p<.001	Intermediate and advanced learners rate in similar manner χ^2 value 2.618, p=.106	Intermediate and advanced learners statistically differ χ^2 value 7.485, p=.006	Intermediate and advanced learners rate in a similar manner χ^2 value 2.504, p=.114
Comparison of L2 groups with natives	Advanced learners are as assertive as natives. χ^2 value 1.959, p=.162	Advanced learners are as assertive as natives χ^2 value .392, p=.531	Advanced learners are as assertive as natives χ^2 value .434, p=.510	Intermediate & advanced learners are as assertive as natives χ^2 value 1.681, p=.195 & χ^2 value .108, p=.743

Table 4.19: Summary of the ratings of *ser* in grammatical and felicitous combinations.

With respect to *estar* (see Table 4.20)*,* L2ers exhibited the same higher levels of acceptance of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') as with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts. Yet, all L2 groups were notably reluctant to accept *estar* in combination with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') that were shown in SL contexts. Even at higher levels of language proficiency, learners inaccurately deemed *estar* with dual dependent-stage adjectives of physical appearance in SL contexts as inappropriate. This stopped advanced learners from achieving a native-like level with this dual adjectival group (χ^2 value 22.957, p<.001).

ESTAR	SL CONTEXTS			
	SL (only-*estar*) adjectives e.g. *contento* 'happy'	Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 acceptance	Greater acceptance by L2ers (73%, 91% & 99%) and natives (100%)	From mild to strong acceptance by L2ers (67%, 77% & 84%) and natives (100%)	Greater acceptance by L2ers (75%, 91% & 90%) and natives (97%)	Greater acceptance by L2ers (84%, 94% & 97%) and natives (99%)
Comparison between the three L2 groups	Statistical difference χ^2 value 44.971, p<.001	Statistical difference χ^2 value 10.090, p=.006	Statistical difference χ^2 value 17.130, p<.001	Statistical difference χ^2 value 15.373, p<.001
Comparison within L2 groups	Beginners and intermediate learners significantly differ in their rating χ^2 value 15.741 p<.001	Beginners and intermediate learners significantly differ χ^2 value 3.307 p=.069	Beginners and intermediate learners significantly differ χ^2 value 14.156, p<.001	Beginners and intermediate learners significantly differ χ^2 value 6.895 p=.009
	Intermediate and advanced learners differ χ^2 value 11.674 p=.001	Intermediate and advanced learners rate in a similar fashion χ^2 value 2.703 p=.100	Intermediate and advanced learners rate in a similar fashion χ^2 value .216 p=.642	Intermediate and advanced learners rate in a similar fashion χ^2 value 2.013 p=.156
Comparison of L2 groups with natives	Advanced learners are assertive as natives χ^2 value 1.045, p=.307	Advanced learners and natives statistically differ χ^2 value 22.957, p<.001	Advanced learners are as assertive as natives χ^2 value 1.580, p=.209	Advanced learners are assertive as natives χ^2 value .767, p=.381

Table 4.20: Summary of the ratings of *estar* in grammatical and felicitous combinations

Table 4.21 reports the level of rejection of ungrammatical combinations of *ser* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and infelicitous combinations of *ser* with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in SL contexts. In general, it is worth noting that L2ers were generally unwilling to reject *ser* irrespective of the adjective with which it was combined. However, a within-group comparison reveals that L2 learners varied significantly (p<.001). Proficiency plays an important role since learners increased their rejection with the level of the proficiency; however, only advanced learners reached a native-like rating with two types of dual adjectives: dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (p=.108) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (p=.134) but failed to with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (p<.001).

SER	SL (only-*estar*) adjectives e.g. *contento* 'happy'	SL CONTEXTS		
		Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 acceptance	Low rejection by L2ers (42%, 66% and 69%) and natives (86%)	Low rejection by L2ers (53%, 59% and 74%) and natives (97%)	Low rejection by L2ers (57%, 79% and 83%) and natives (89%)	Low rejection by L2ers (55%, 82% and 81%) and natives (88%)
Comparison between the three L2 groups	Statistical difference χ^2 value 25.237, p<.001	Statistical difference χ^2 value 13.285,p=.001	Statistical difference χ^2 value 25.336,p<.001	Statistical difference χ^2 value 29.329,p<.001
Comparison within L2 groups	Beginners and intermediate learners reject similarly χ^2 value 5.938, p=.015	Beginners and intermediate learners differ significantly χ^2 value 12.051,p=.001	Beginners and intermediate learners differ significantly χ^2 value 16.216,p<.001	Beginners and intermediate learners differ significantly χ^2 value 23.127,p<.001
	Intermediate and advanced learners reject in a similar fashion χ^2 value .159, p=.691	Intermediate and advanced learners differ significantly χ^2 value 7.879, p=.005	Intermediate and advanced learners reject in a similar fashion χ^2 value .792, p=.374	Intermediate and advanced learners reject in a similar fashion χ^2 value .009, p=.924
Comparison of L2 groups with natives	Advanced learners and natives are statistically different χ^2 value 13.695, p<.001	Advanced learners and natives reject in a different fashion χ^2 value 30.001,p<.001	Advanced learners and natives reject in a similar fashion χ^2 value 2.250, p=.134	Advanced learners and natives reject in a similar fashion χ^2 value 2.582, p=.108

Table 4.21: Summary of the ratings of *ser* in ungrammatical contexts

As for the level of rejection of *estar* in ungrammatical combinations with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and in infelicitous combinations with dual adjectives (e.g. *amable* 'kind', *nervioso* 'nervous' and *viejo* 'old') in IL contexts (see Table 4.22), L2ers were generally more assertive in their responses. Indeed, advanced learners attained a native-like level with all types of dual adjectives (χ^2 value 3.511, p=.061, χ^2 value .098, p=.754 and χ^2 value .032, p=.857).

ESTAR	IL CONTEXTS			
	IL (only-*ser*) adjectives e.g. *famoso* 'famous'	Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 acceptance	From mild to severe rejection by L2ers (66%, 68% and 89%) and natives (98%).	From mild to severe rejection by L2ers (58%, 68% and 86%) and natives (85%).	From mild to strong rejection by L2ers (61%, 68% and 84%) and natives (90%).	From mild to severe rejection by L2ers (55%, 75% and 83%) and natives (84%).
Comparison between the three L2 groups	Statistical difference χ^2 value 8.363, p=.015	Statistical difference χ^2 value 31.535, p<.001	Statistical difference χ^2 value 47.521, p<.001	Statistical difference χ^2 value 39.741, p<.001
Comparison within L2 groups	Beginners and intermediate learners reject *estar* in a similar fashion χ^2 value .208, p=.649	Beginners and intermediate learners reject in a similar fashion χ^2 value 2.795, p=.095	Beginners and intermediate learners reject in a similar fashion χ^2 value 1.251, p=.263	Beginners and intermediate learners differ in their rejection χ^2 value 12.032, p=.001
	Intermediate and advanced learners differ in their rejection χ^2 value 20.301, p<.001	Intermediate and advanced learners differ in their rejection χ^2 value 13.500, p<.001	Intermediate and advanced learners reject in a similar fashion χ^2 value 3.511, p=.061	Intermediate and advanced learners reject in a similar fashion χ^2 value 2.756, p=.097
Comparison of L2 groups with natives	Advanced learners and natives are statistically different χ^2 value 11.127, p=.001	Advanced learners and natives reject in a similar fashion χ^2 value .032, p=.857	Advanced learners and natives reject in a similar fashion χ^2 value 3.511, p=.061	Advanced learners and natives reject in a similar fashion χ^2 value .098, p=.754

Table 4.22: Summary of the ratings of *estar* in ungrammatical contexts

4.4.2 Results of the focused oral production tasks

Next I will report the results of the oral production tasks that will allow us to measure the L2 performance on copular clauses. One task included adjectives that have a fixed distribution with *ser* and *estar* (i.e. IL (only-*ser*) adjectives such as *famoso* 'famous' and SL (only-*estar*) adjectives such as *contento* 'happy'), and the other targeted dual adjectives that are compatible with both of the copular verbs (i.e. dual adjectives such as *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous'). As explained earlier, to investigate whether L2ers are able to produce copular clauses with adjectival predicates in all possible combinations and discursive contexts, elicitation cards were needed. For the oral production task with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives, cards contained a prompt question and the adjective being tested, whereas for the oral production task with dual adjectives, cards consisted of a background context and a comment that included a dual adjective.

4.4.2.1 Results of the focused oral production task with IL (only-*ser*) and SL (only-*estar*) adjectives

Firstly, I will present the results of the oral production task with those adjectives that display an obligatory copular distribution. Figures 4.47 and 4.48 show a consistently high level of accuracy among all L2 groups with *ser* in contrast with the upward stepped trend towards accuracy of *estar* over time. A group comparison shows that L2 learners used *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') in a similar manner (χ^2 value 5.422 p=.066) but differed in their use of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (χ^2 value 103.972 p<.001) (see Tables 4.23 and 4.24). Each copular verb follows a distinct developmental pathway. It seems that for lower levels of proficiency the overuse of *ser* was actively at play, which led beginners to oversupply *ser* in combination with SL (only-*estar*) adjectives by 68%, and intermediate learners by 32%. These results indicate that intermediate learners improved in their accurate production of *estar* (68%) while maintaining a high level of *ser* production (90%). Moreover, although advanced learners have acquired the copular distribution when it is obligatory, since they exceeded the 90% threshold of acquisition with both copular verbs, they still did not perform as well as the native control group either with *ser* (χ^2

value 6.380 p=.012) or with *estar* (χ^2 value 9.671 p=.002) (see Table 4.25), although it should be underlined that the difference is smaller with *ser* (see Appendix D).
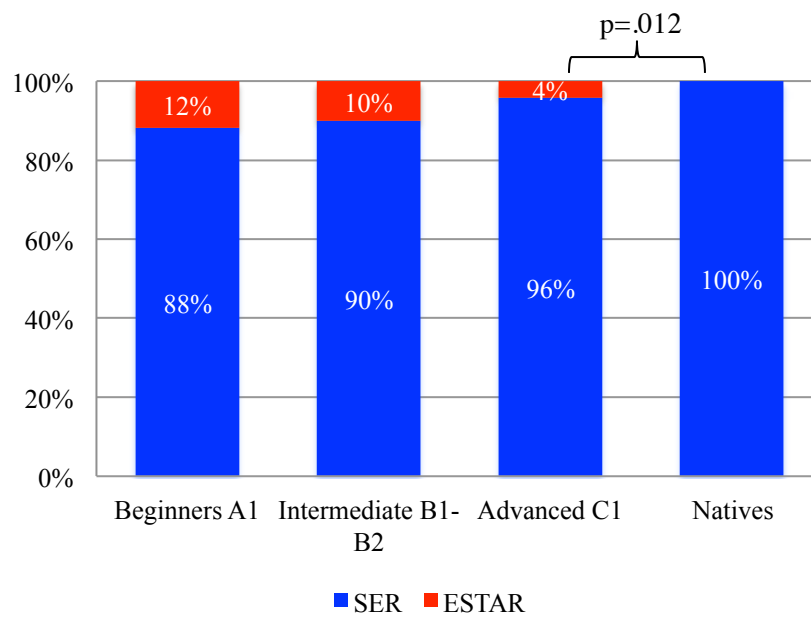
Figure 4.47: Mean percentages of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')
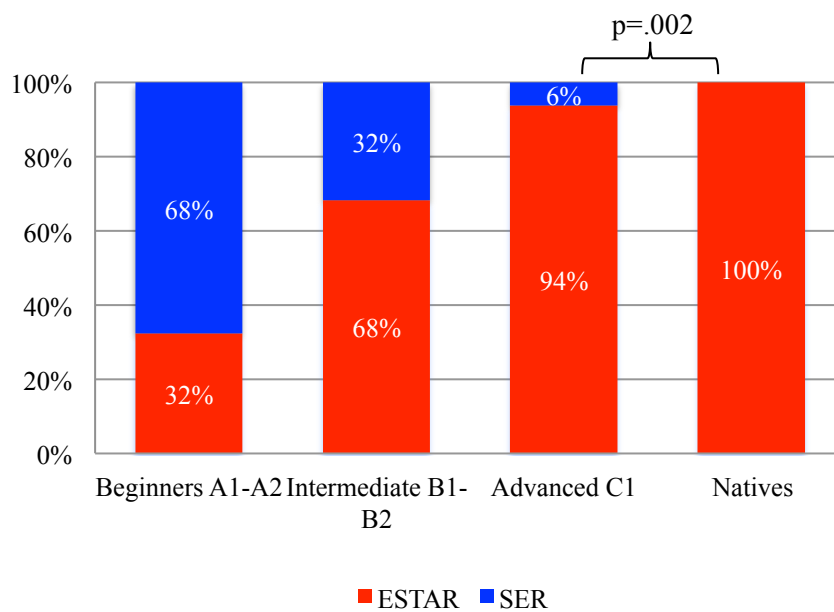
Figure 4.48: Mean percentages of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')

	Oral production of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')		Oral production of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')	
	χ^2 value	*p*	χ^2 value	*p*
Beginners, intermediate and advanced learners	5.422[a]	p=.066	103.972[a]	p<.001

Table 4.23: Results of Pearson χ^2 tests. Comparison of L2 groups

	Oral production of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')		Oral production of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')	
	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. intermediate learners	.213[a]	p=.644	34.100[a]	p<.001
Beginners vs. advanced learners	5.083[a]	p=.024	103.942[a]	p<.001
Intermediate learners vs. advanced learners	3.969[a]	p=.046	31.861[a]	p<.001

Table 4.24: Results of Pearson χ^2 tests. Within-comparisons of L2 groups

	Oral production of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')		Oral production of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')	
	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	18.529[a]	p<.001	139.730[a]	p<.001
Intermediate learners vs. natives	15.865[a]	p<.001	57.418[a]	p<.001
Advanced learners vs. natives	6.380[a]	p=.012	9.671[a]	p=.002

Table 4.25: Between-comparison with native speakers

4.4.2.2 Results of the focused oral production task with dual adjectives

As we have seen in the oral production with adjectives that have a fixed distribution, L2 learners also displayed a steadier pattern with *ser* than with *estar* in combination with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous'), which shows a staircase pattern. Figure 4.49 shows that L2ers uniformly produced *ser* for IL contexts, whereas for SL contexts they started at a lower level (28%) and increased their production of *estar* over time (see Figure 4.50).
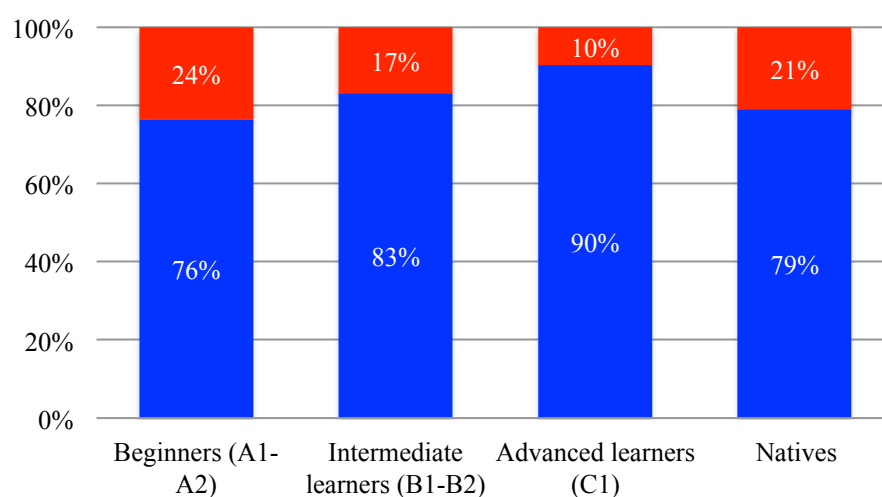
Figure 4.49: Mean percentages of *ser* and *estar* with dual adjectives in IL contexts
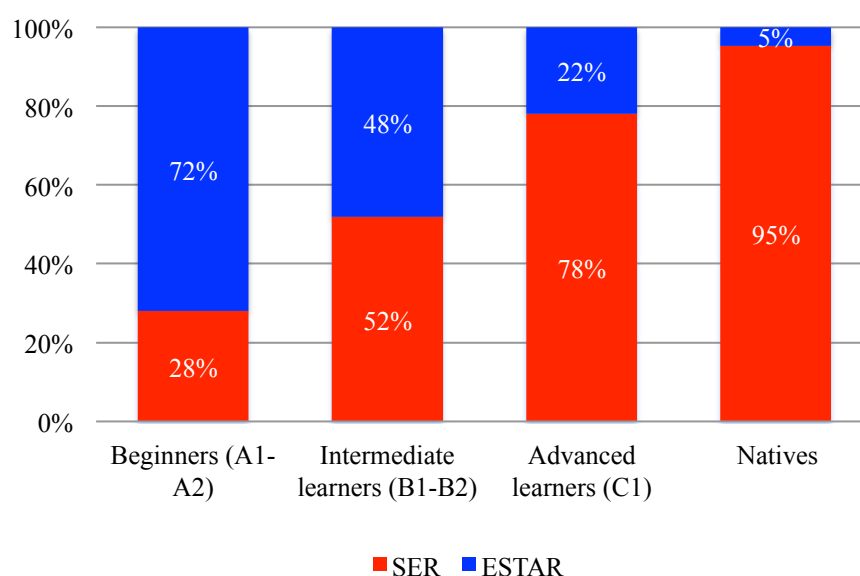
Figure 4.50: Mean percentages of *ser* and *estar* with dual adjectives in SL contexts

As for the native responses of *ser* with dual adjectives that were presented in IL contexts, results were unexpectedly heterogeneous. As can be seen in Figure 4.51, the native rate is considerably higher with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (93%), than with dual dependent-stage adjectives of physical appearance (79%) and dual self-standing adjectives (e.g. *nervioso* 'nervous') (65%). It is clear that natives did not agree on their copular production with the latter groups for IL contexts. Natives overused *estar* in IL contexts where the expected answer was *ser*. As pointed out to me by Fábregas (2016, p.c.), one possible explanation for the native

preference of *estar* instead of *ser* in IL contexts may be accounted for what Roby (2009) called an evidential use of *estar*. In essence, natives would tend to use *estar* after one sensory encounter. So the same argument applies to our native controls since they were asked to attribute properties of unknown characters that they have just met (see examples of *delgada* 'thin', *tonta* 'silly', *feliz* 'happy', *intranquilo* 'restless' and *nervioso* 'nervous' in Appendix D, Figures 16, 20 and 24). It is quite possible that they were less inclined to classify the subject into a class based on the contextual information and required a deeper knowledge of the subject to be more categorical in their responses. However, I do not believe that these results translate in an extension of *estar* over *ser* (as has been reported in the literature Silva-Corvalán, 1986 for Spanish heritage speakers and Geeslin and Guijarro Fuentes, 2008 have reported for Peninsular Spanish bilingual speakers) since when participants were presented with pairs of copular clauses with dual adjectives they recognised the semantic contrast that *ser* and *estar* yield.
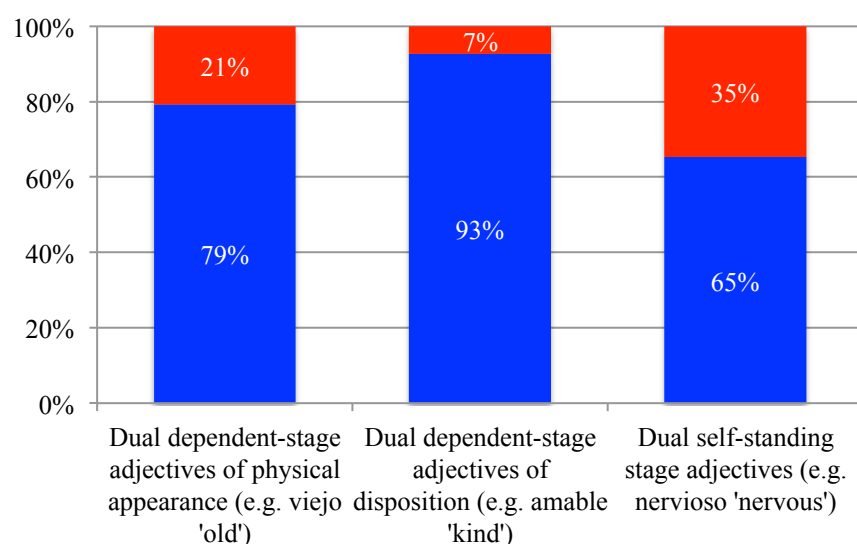
Figure 4.51: Mean percentages of *ser* and *estar* with dual adjectives in IL contexts

In contrast, learners of all levels of language proficiency predominantly selected *ser* with dual adjectives for IL contexts (see Figure 4.52), although it should be highlighted that they were less assertive in the production of *ser* with dual adjectives than they were with IL (only-*ser*) adjectives (e.g. *famoso* 'famous'). A comparison between L2 groups indicates that they performed with the three types of dual adjectives in a significantly different manner (see Table 4.26). More precisely, beginners were more confident with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (82%) than the other two adjectival groups, that is, dual dependent-stage

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adjectives of disposition (e.g. *amable* 'kind') (76%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (71%). This pattern varies slightly as the level of proficiency increases (see Table 4.27). Intermediate learners became more accurate in the production of *ser* with dual dependent-stage adjectives of physical appearance (91%) and those of disposition (85%); however, they remained at the same level as beginners with dual self-standing stage adjectives (73%). Nevertheless, this did not prevent advanced learners from achieving a 90% suppliance of *ser* with dual adjectives in IL contexts, reaching a native-like level with dual dependent-stage adjectives of disposition (p=.067). The lower rates of the natives speakers for dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (79%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (65%) explains that the χ^2 test between advanced learners and natives resulted in a statistical difference (p<.001 in both cases), however, as learners exceeded the 90% of correct suppliance of *ser*, I conclude that advanced learners achieved a native-like level with dual dependent-stage adjectives of physical appearance (94%) and dual self-standing stage adjectives (90%), followed very closely by dual dependent-stage adjectives of disposition (86%). Indicating that they were aware of the relation between *ser* and IL contexts.
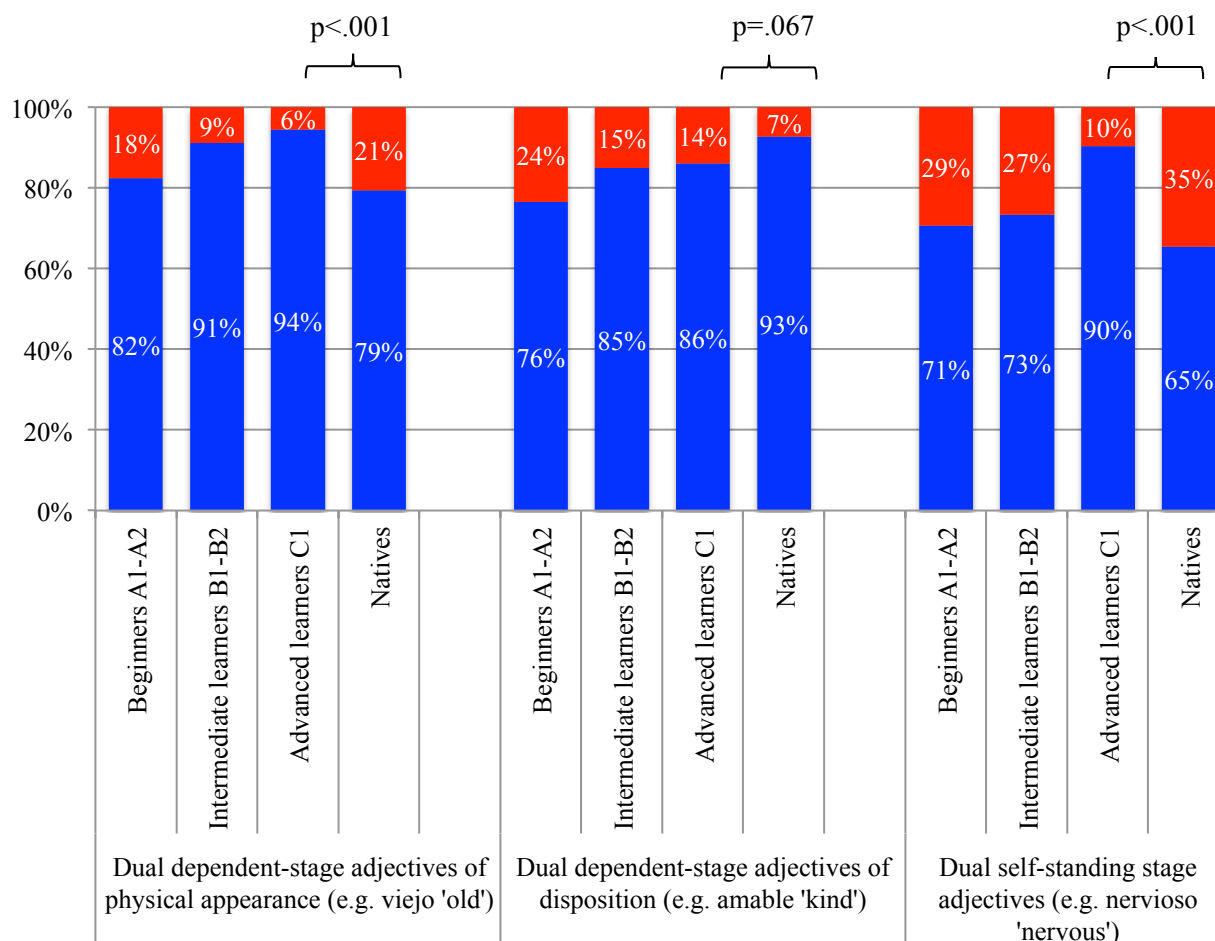
Figure 4.52: Mean percentages of *ser* and *estar* in IL contexts

	Production of *ser* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Production of *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Production of *ser* with dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners, intermediate and advanced	62.178[a]	p<.001	29.960[a]	p<.001	14.788 [a]	p=.001

Table 4.26: Results of Pearson χ^2 tests. Comparison of L2 groups

	Production of *ser* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Production of *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Production of *ser* with dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ² value	*p*	χ² value	*p*	χ² value	*p*
Beginners & intermediate learners	37.625[a]	p<.001	3.197[a]	p=.074	1.773[a]	p=.183
Beginners & advanced learners	43.075[a]	p<.001	3.778[a]	p=.052	4.899[a]	p=.027
Intermediate and advanced learners	1.296[a]	p=.255	.080[a]	p=.778	14.844[a]	p<.001

Table 4.27: Results of Pearson χ² tests. Within-comparisons of L2 groups

	Production of *ser* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts		Production of *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts		Production of *ser* with dual self-standing adjectives (e.g. *nervioso* 'nervous') in IL contexts	
	χ² value	*p*	χ² value	*p*	χ² value	*p*
Beginners & natives	10.323[a]	p=.001	13.316[a]	p<.001	6.746[a]	p=.009
Intermediate learners & natives	9.292[a]	p=.002	4.720[a]	p=.030	2.479[a]	p=.115
Advanced learners & natives	14.581[a]	p<.001	3.347[a]	p=.067	26.259[a]	p<.001

Table 4.28: Results of Pearson χ² tests. Between-comparison of L2 groups and natives

Turning our attention now to the production of *estar* in SL contexts (see Figure 4.53), native responses were more homogeneous. There is unanimous agreement of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (99%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (99%) and to a lesser degree with dual dependent-stage adjectives of disposition (88%). In contrast, L2 learners experienced a gradual development of *estar* that increased according to the level of language proficiency. Here again, beginners and intermediate learners were inclined to overuse *ser* with dual adjectives in SL contexts. Beginners started out at a very low level (28%) and, despite increasing their *estar* selection, intermediate learners continued producing *ser* only half the time. The rate of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') and those of disposition (e.g. *amable* 'kind') varies between 42% and 54%, while the one pertaining to dual self-standing stage adjectives is slightly higher, at 59%. Finally and most importantly, advanced learners only reached a target use with dual self-standing stage adjectives (e. g. *nervioso*
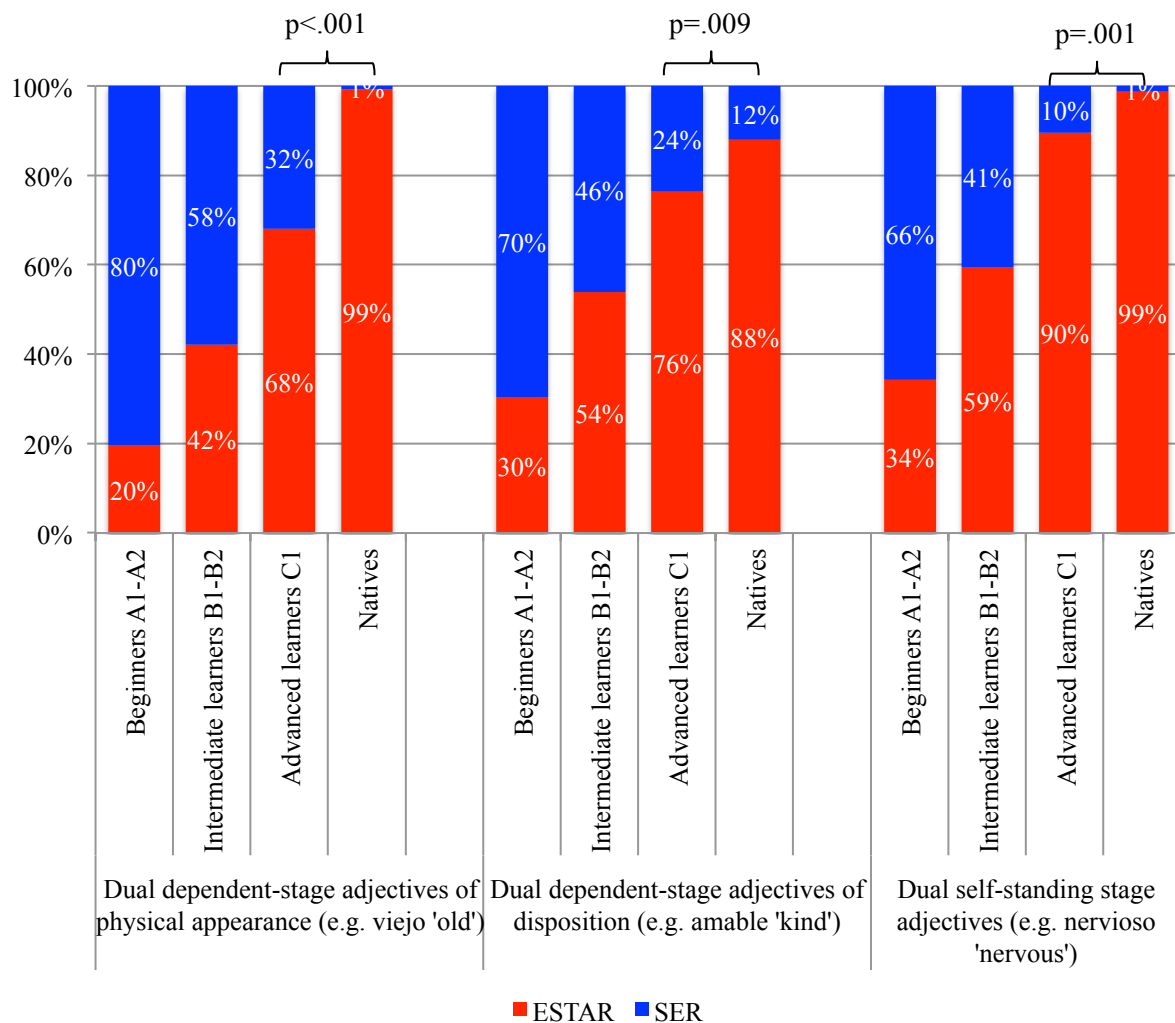
Figure 4.53: Mean percentages of *ser* and *estar* and dual adjectives in SL contexts

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'nervous') (90%), although they are statistically different to our native control group (p=.001) (99%). By contrast, they lagged behind with dual dependent stage adjectives of disposition (e.g. *amable* 'kind') (p=.009) and even more with those of physical appearance (e.g. *viejo* 'old') (p <.001).

	Production of e*star* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Production of e*star* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Production of e*star* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners, intermediate and advanced	57.891[a]	p<.001	51.730[a]	p<.001	81.141[a]	p<.001

Table 4.29: Results of Pearson χ^2 tests. Comparison of L2 groups

	Production of e*star* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Production of e*star* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Production of e*star* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. intermediate learners	14.829[a]	p<.001	14.501[a]	p<.001	16.448[a]	p<.001
Beginners vs. advanced learners	56.150[a]	p<.001	51.635[a]	p<.001	82.075[a]	p<.001
Intermediate vs. advanced learners	21.473[a]	p<.001	17.555[a]	p<.001	36.732[a]	p<.001

Table 4.30: Results of Pearson χ^2 tests. Within-comparison of L2 groups

	Production of e*star* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts		Production of e*star* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts		Production of e*star* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts	
	χ^2 value	*p*	χ^2 value	*p*	χ^2 value	*p*
Beginners vs. natives	174.712[a]	p<.001	88.202[a]	p<.001	126.453[a]	p<.001
Intermediate learners vs. natives	123.012[a]	p<.001	44.824[a]	p<.001	71.671[a]	p<.001
Advanced learners vs. natives	53.515[a]	p<.001	6.803[a]	p=.009	11.127[a]	p=.001

Table 4.31: Results of Pearson χ^2 tests. Between-comparison of L2 groups and natives

4.4.2.5 Summary of results

Table 4.32 breaks down the high production of *ser* with IL (only-*ser*) adjectives and dual adjectives in IL contexts. The analysis shows that L2ers produced *ser* with IL (only-*ser*) (e.g. *famoso* 'famous') adjectives more confidently than with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind'). Furthermore, only advanced learners surpassed the 90% of correct suppliance of *ser* in grammatical and felicitous combinations.

SER	IL CONTEXTS			
	IL(only-*ser*) adjectives e.g. *famoso* 'famous'	Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 production	High production by L2ers (88%m 90% & 96%) & natives (100%)	High production by L2ers (82%, 91% & 94%) & natives (79%)	High production by L2ers (76%m 85% & 86%) & natives (93%)	High production by L2ers (71%m 73% & 90%) & mild production by natives (65%)
Comparison between the three L2 groups	No statistical difference χ^2 value 5.422, p=.066	Statistical difference χ^2 value 62.178, p<.001	No statistical difference χ^2 value 4.619, p=.099	Statistical difference χ^2 value 14.788, p=.001
Comparison within L2 groups	Beginners and intermediate produce *ser* in a similar manner. χ^2 value .213, p=.644	Beginners and intermediate similarly produce *ser* in χ^2 value 3.750, p=.053	Beginners and intermediate produce *ser* in a similar manner. χ^2 value 3.197, p=.074	Beginners and intermediate produce *ser* in a similar manner. χ^2 value 1.773, p=.183
	Intermediate & advanced learners produce *ser* in a similar manner, χ^2 value 3.969, p=.046	Intermediate & advanced learners produce *ser* in a similar manner χ^2 value 1.199, p<=.273	Intermediate & advanced learners produce *ser* in a similar manner, χ^2 value .080, p=.778	Intermediate & advanced learners statistically differ χ^2 value 14.844, p<.001
Comparison of L2 groups with natives	Advanced learners reach a native level if *culpable* 'guilty' is excluded. χ^2 value 1.046, p=.306	Advanced learners reach a native level χ^2 value 1.565, p=.211	Advanced learners reach a native. χ^2 value 3.347, p=.067	Advanced learners accurately use *ser* but do not perform as the control group. χ^2 value 26.259, p<.001

Table 4.32: Summary of the *ser* production

As far as the production of *estar* is concerned, the results of this study show an upward trend. Learners became more accurate with proficiency. While beginners and intermediate learners used *estar* minimally, advanced learners improved considerably

but still only achieved 90% of *estar* production with dual self-standing adjectives (e.g. *nervioso* 'nervous'). Likewise, they were somewhat closer to natives with dual dependent-stage adjectives of disposition (p=.009) but still statistically different. Finally, when dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') where involved, advanced learners produced still very low rates (69%), something that deviated them from natives (p<.001).

ESTAR	SL CONTEXTS			
	SL(only-*estar*) adjectives e.g. *contento* 'happy'	Dual dependent-stage adjectives of physical appearance e.g. *viejo* 'old'	Dual dependent-stage adjectives of disposition e.g. *amable* 'kind'	Dual self-standing stage adjectives e.g. *nervioso* 'nervous'
Level of L2 acceptance	Upward trend in production by L2ers (32%, 68% & 94%) and natives (100%)	Slow upward trend in production by L2ers (20%, 42% & 68%) and natives (99%)	Upward trend in production by L2ers (30%, 54% & 76%) and natives (88%)	Upward trend in production by L2ers (34%, 59% & 90%) and natives (99%)
Comparison between the three L2 groups	Statistical difference χ^2 value 103.972, p<.001	Statistical difference χ^2 value 57.891, p<.001	Statistical difference χ^2 value 51.730, p<.001	Statistical difference χ^2 value 81.141, p<.001
Comparison within L2 groups	Beginners and intermediate learners statistically differ. χ^2 value 34.100, p<.001	Beginners and intermediate learners statistically differ. χ^2 value 14.829, p<.001	Beginners and intermediate learners statistically differ. χ^2 value 14.501, p<.001	Beginners and intermediate learners statistically differ. χ^2 value 16.448, p<.001
	Intermediate and advanced learners statistically differ. χ^2 value 31.861, p<.001	Intermediate and advanced learners statistically differ. χ^2 value 21.473, p<.001	Intermediate and advanced learners statistically differ. χ^2 value 17.555, p<.001	Intermediate and advanced learners statistically differ. χ^2 value 36.732, p<.001
Comparison of L2 groups with natives	Advanced learners do not reach a native level. χ^2 value 9.671, p=.002	Advanced learners do not reach a native level. χ^2 value 53.515, p<.001	Advanced learners do not reach a native level. χ^2 value6.803, p=.009	Advanced learners do not reach a native level. χ^2 value 11.127, p=.001

Table 4.33: Summary of *estar* production

4.5 Summary of the Chapter

In this chapter I have presented the novel task designs of the pilot and the final experimental study on the acquisition of the Spanish copular verbs in combination with twelve adjectives that have an obligatory distribution and eighteen adjectives that are grammatically possible with both copulas. To this end, two written comprehension tasks and two oral production tasks were carefully designed in order to elicit copular clauses as natural as possible. Data for the final study were collected from seventy-one English L2 learners of Spanish and twenty-five native controls. The analysis of data shows that L2 learners are more accurate in the written comprehension tasks than in the oral production ones. Similarly, within the comprehension tasks their level of acceptance of grammatical and felicitous combinations was higher than their level of rejection of ungrammatical and infelicitous ones. More precisely, advanced learners achieved a native-like level of acceptance of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and the three types of dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts. In contrast, when *estar* was at stake, advanced learners only attained a native-like level with SL (only-*estar*) adjectives (e.g. *contento* 'happy'), dual self-standing stage adjectives (e.g. *nervioso* 'nervous') and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind'), however, they failed to so with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'). As for the rejection, by and large learners were more reluctant to reject *ser* than *estar*, however, they were more accurate with dual adjectives than with SL (only-*estar*) adjectives. Finally, with respect to the oral production, it is noteworthy that learners exhibited two clear developmental patterns for each copular verb: a more consistent production of *ser* that contrasts with the upward trend of *estar*. As a result, advanced learners reached target use with all adjectives that are compatible with *ser,* namely IL (only-*ser*) adjectives and dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts, however, they only achieved a similar level with two groups of adjectives, that is, SL (only-*estar*) adjectives (e.g. *contento* 'happy') and dual self-standing-stage adjectives (e.g. *nervioso* 'nervous') that were presented in SL contexts.

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Chapter 5

Discussion and conclusions

In this chapter I will discuss the ramifications of the data presented in the previous chapter. I will do this in two steps: firstly, I will present an overview regarding the interpretation of the data, paying particular attention to the contrasting results found in different modality tasks (focused oral production versus focused written comprehension); as well as the contrast found between the level of acceptance of grammatical and felicitous copular combinations and the level of rejection of ungrammatical and infelicitous ones within the comprehension tasks. As I will discuss, it is the learners' failure to reject appropriately that can give us a deeper insight into their actual state of mental representation and their level of acquisition of the syntactic and discursive properties of the Spanish copulas.

Secondly, I will discuss the results with respect to the research questions that motivated this experimental study and the hypotheses that we entertained to answer them; namely the Syntactic Complexity Hypothesis and the Interface Hypothesis (Sorace, 1993; Sorace, 2003; Sorace, 2005; Tsimpli and Sorace, 2006, among others). The first hypothesis predicts that if L2 acquisition is driven by the syntactic properties of the elements in question, then the simpler the copula is, the earlier it will be acquired. As I have exposed in Chapter Three, based on the syntactic account of the Spanish copulas put forward by Arche *et al.* (to appear), *ser* will be acquired earlier than *estar* and learners will exhibit protracted delays with *estar* since this is the copula that carries an additional relation element that *ser* does not. The Interface Hypothesis (idem) postulates that linguistic phenomena that depend on one module of the grammar (e.g. syntax) pose lesser difficulties than those phenomena that combine information from different linguistic modules in an interface (e.g. syntax-semantics interface, syntax-pragmatics interface, among others). Furthermore, several authors (Sorace, 1993; Sorace, 2000; Sorace, 2005; Sorace and Filiaci, 2006; Sorace and Serratrice, 2009,

among others) note that the interface between syntax and pragmatics is more vulnerable to instability and fossilisation in particular, since learners must evaluate the appropriateness of a linguistic structure in regard to a particular context. As for the Spanish copulas, this hypothesis predicts that L2 learners may attain a native-like mental representation when the copular distribution depends solely on the syntax, i.e. when the distribution is obligatory (e.g. *ser* with IL (only-*ser*) adjectives such as *famoso* 'famous' and *estar* with SL (only-*estar*) adjectives such as *contento* 'happy'). In contrast, learners at higher levels will exhibit residual optionality when the copulas appear with dual adjectives since they are context-dependent. In these instances they must assess whether the syntactic properties of the copula are appropriate to the discursive context. As both copulas are compatible with dual adjectives, the copular selection entails a semantic contrast but will not lead to ungrammaticality in any case. Therefore, choosing *ser* for contexts that ascribe a property to the individual as such (i.e. IL contexts) or *estar* for contexts that depict a property that holds true of the individual in a particular circumstance (i.e. SL contexts) results in a discursively felicitous combination. Conversely, selecting *ser* for SL contexts or *estar* for IL contexts produces a discursively infelicitous combination.

In the next section, I will discuss the results of the comprehension and production tasks, paying particular attention to whether or not advanced learners attained the same mental representation of the copular alternation as native Peninsular Spanish speakers.

5. 1 Comprehension versus production

Following common practice in the field of second language research, I adopt 90% accuracy as the threshold of acquisition. As these results may be directly affected by an initial overuse of *ser* (especially at lower levels) or a general tendency to choose *ser*, I consider the syntactic and discursive properties of a copula to have been completely acquired when two requirements are met: firstly, when learners are as proficient at accepting grammatical and discursively felicitous combinations as they are at rejecting ungrammatical and discursively infelicitous ones (90% or above in both cases), and secondly, when L2 learners attain 90% or above of accurate copular selection in the focused oral production tasks.

For ease of exposition, in the next section I first interpret the results from the focused comprehension tasks, discussing the rates of acceptance of grammatical and felicitous copular combinations as well as the level of rejection of ungrammatical and infelicitous ones. Secondly, I will look at the contrast found between the results of the comprehension tasks and the ones pertaining to the focused oral production tasks.

5.1.1 Focused comprehension and production of ser and estar by beginners (A1-A2)

The level of acceptance of *ser* in grammatical combinations (i.e. IL (only-*ser*) adjectives such as *famoso* 'famous') and in discursively felicitous combinations with the three types of dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts is considerably high at beginner's level, particularly with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (87%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (81%) (see Table 5.1). In contrast, their rejection is at chance level (around 50%), which suggests that beginners have not fully acquired which adjectival predicates lead to ungrammaticality and which

	SER					
	Acceptance of *ser* in grammatical combinations	Acceptance of *ser* in felicitous combinations in IL contexts	Rejection of *ser* in ungrammatical combinations	Rejection of *ser* in infelicitous combinations in SL contexts	Production of *ser* in grammatical combinations	Production of *ser* in IL contexts
IL(only-*ser*) adjectives (e.g. *famoso* 'famous')	78%				88%	
SL(only-*ser*) adjectives (e.g. *contento* 'happy')			52%			
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		81%		53%		82%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		87%		57%		76%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		83%		54%		71%

Table 5.1: Mean percentages of *ser* in the comprehension and production tasks by beginners

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discursive contexts are inappropriate for *ser*. To be precise, they still accepted *ser* in ungrammatical combinations (e.g. SL (only-*estar*) adjectives such as *contento* 'happy') and in infelicitous combinations with dual adjectives that are introduced in SL contexts that portray properties that hold true of the subject in a particular circumstance.

As for the focused oral production, beginners started out at a very high rate of choosing *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (88%) and dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (82%) in IL contexts; however, they were less confident with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (76%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (71%). These results show that there is no correspondence between the results of the acceptance of grammatical and felicitous combinations and the results of the oral production of *ser*. Beginners were more accurate at accepting *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') than with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'). However, in the production results, beginners showed the opposite tendency. Instead of maintaining a strong preference in choosing *ser* with dual dependent-stage of disposition (e.g. *amable* 'kind') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in the appropriate discursive contexts (i.e. IL contexts), they selected *ser* more with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts.

As shown in Table 5.2, the level of acceptance of *estar* in grammatical combinations (i.e. SL (only-*estar*) adjectives such as *contento* 'happy') and in discursively felicitous combinations with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in SL contexts is reasonably high. Yet it must be said that beginners displayed a greater level of variation when they accepted *estar* than they did with *ser*. They were highly accurate at accepting the appropriate combination between *estar* and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (85%) in SL contexts and, to a lesser degree accepted dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (75%) in the same discursive contexts and grammatical combinations with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (73%). By contrast, they were less willing to accept *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (66%) in SL contexts. As shown in Chapter Four,

the reluctance to accept *estar* with this adjectival group was encountered at all levels of L2 proficiency. Thus, learners were least prone to choose *estar* for discursive contexts where a property that refers to physical appearance holds true of the individual in a given circumstance as in *Pedro está viejo* 'Pedro is (looks) older'.

Moreover, with respect to the level of rejection of *estar* in ungrammatical combinations (i.e. IL (only-*ser*) adjectives such as *famoso* 'famous') and in inappropriate discursive contexts (i.e. IL contexts) with dual adjectives, beginners were moderately more accurate at rejecting *estar* than *ser*. They performed above chance level and exhibited a higher rate of rejection of *estar* in ungrammatical clauses with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (66%) than in discursively infelicitous combinations with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (61%), dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (58%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (55%) in IL contexts.

With regards to the focused oral production of *estar,* a different picture emerges. Beginners overused *ser* to such an extent that they infrequently produced *estar.* This is particularly evident with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (20%), although lower rates were also found in grammatical combinations with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (32%) and with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (30%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (34%) that were shown in SL contexts where the copula expected was *estar*. Unlike with *ser,* these results suggest a correspondence between the acceptance of *estar* in grammatical and felicitous combinations and oral production with the same adjectival predicates. Note that beginners inaccurately accepted *estar* fewer times in combination with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (66%) than any other adjectival group, also choosing it less often in the focused oral production task (20%).

	ESTAR					
	Acceptance of *estar* in grammatical combinations	Acceptance of *estar* in felicitous combinations in SL contexts	Rejection of *estar* in ungrammatical combinations	Rejection of *estar* in infelicitous combinations in IL contexts	Oral production of *estar* in grammatical combinations	Oral production of *estar* in SL contexts
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')			66%			
SL (only-*ser*) adjectives (e.g. *contento* 'happy')	73%				32%	
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		66%		58%		20%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		75%		61%		30%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		85%		55%		34%

Table 5.2: Mean percentages of *estar* in the comprehension and production tasks by beginners

Overall, taken together with the comprehension results, beginners are reasonably capable of identifying the grammatical and felicitous combinations with *ser* and *estar*, but less proficient at rejecting ungrammatical and infelicitous combinations. In the focused oral production tasks, beginners achieved higher rates of selecting *ser* in grammatical combinations with IL (only-*ser*) adjectives and in felicitous combinations with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in the appropriate discursive contexts (i.e. IL contexts). Nonetheless, these higher results of *ser* may mask a misuse since beginners also chose this copula abundantly for grammatical and felicitous combinations where the copula expected was *estar*. Learners at a beginner's level only minimally selected *estar* in grammatical (i.e. SL (only-*estar*) adjectives) and felicitous combinations of dual adjectives in SL contexts, and even

chose *estar* at a lesser rate with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (20%) that appeared in SL contexts.

5.1.2 Focused comprehension and production of ser and estar by intermediate learners (B1-B2)

In general, intermediate learners increased their level of acceptance of *ser,* being particularly more accurate at accepting this copula in felicitous combinations with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in IL contexts than with grammatical sentences with IL (only-*ser*) adjectives (e.g. *famoso* 'famous'). As illustrated in Table 5.3, intermediate learners consolidated the trend of beginners by exceeding a 90% of acceptance of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (95%) and with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (91%) in the appropriate discursive IL contexts. They were also skillful in the acceptance of *ser* with dual dependent-stage adjectives of physical appearance (89%) in IL contexts and to a lesser degree they correctly accepted *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (83%). It is important to note that the higher acceptance of intermediate learners with *ser* and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') led them to achieve a native-like level (p=.195). Furthermore, their level of rejection of *ser* in infelicitous combinations grew considerably more with the same dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (84%) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (79%) than with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (59%) in SL contexts. Similarly, they rejected *ser* fewer times in ungrammatical combinations with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (66%). These results indicate that intermediate learners identified which discursive contexts are appropriate for *ser* (i.e. IL contexts) and which are not (i.e. SL contexts) when dual self-standing adjectives (e.g. *nervioso* 'nervous') and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') are involved. That is, they correctly associated *ser* with discursive contexts that depict a property of the subject in and of itself (i.e. IL contexts).

As occurred with beginners, the high results obtained in the focused comprehension tasks for the acceptance of *ser* in felicitous combinations with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (95%) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (91%) did not translate into a high

production of *ser* with the same adjectival predicates (73% and 85%, respectively). Indeed, the opposite tendency is confirmed.

Intermediate learners exceeded the 90% accurate threshold of their selection of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (90%) and dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (91%) in the focused oral production tasks. Again these higher scores may still evince the effects of a misuse of *ser* since learners were less competent at rejecting *ser* in ungrammatical clauses with SL (only-*estar*) adjectives (66%) and in discursively infelicitous combinations with dual adjectives of physical appearance (59%) in SL contexts. Additionally, as we will see below, intermediate learners inaccurately selected *ser* for SL (only-*estar*) adjectives and discursive contexts where the appropriate copula is *estar*.

	SER					
	Acceptance of *ser* in grammatical combinations	Acceptance of *ser* in felicitous combinations in IL contexts	Rejection of *ser* in ungrammatical combinations	Rejection of *ser* in infelicitous combinations in SL contexts	Oral production of *ser* in grammatical combinations	Oral production of *ser* in IL contexts
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	83%				90%	
SL (only-*ser*) adjectives (e.g. *contento* 'happy')			66%			
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		89%		59%		91%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		91%		79%		85%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		95%		82%		73%

Table 5.3: Mean percentages of *ser* in the comprehension and production tasks by intermediate learners

The level of acceptance of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and in felicitous combinations (i.e. dual adjectives in SL contexts) among the intermediate group was more homogeneous that the one of beginners (compare Tables 5.2 and 5.4). They increased their acceptance of *estar* by surpassing the 90% threshold with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (94%), dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (91%) in SL contexts as well as in grammatical combinations with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (91%). Again, intermediate learners lagged behind in their acceptance of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (77%) when shown in contexts where *estar* was the appropriate choice. With respect to the rejection, learners also improved their accuracy in rejecting *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (75%) that were introduced in inappropriate discursive contexts (i.e. IL-contexts). Moreover, they exhibited the same level of rejection of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo*) (68%) and those of disposition (e.g. *amable* 'kind') (68%) that were also shown in inappropriate discursive contexts and also in the rejection of *estar* with IL (only-*ser*) adjectives (e.g. *famoso* 'alone') (68%).

With regards to the focused oral production of *estar*, intermediate learners doubled the low rates of beginners with all adjectival predicates. They were more accurate with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (68%) that have an obligatory distribution than with dual adjectives that are context-dependent. With the latter group, they were more skillful with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (59%) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (54%) than with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (42%). Despite their considerable improvement in accuracy, intermediate learners still inappropriately oversupplied *ser* for SL contexts that represented a property that holds true of the subject in a particular circumstance.

	ESTAR					
	Acceptance of *estar* in grammatical combinations	Acceptance of *estar* in felicitous combinations in SL contexts	Rejection of *estar* in ungrammatical combinations	Rejection of *estar* in infelicitous combinations in IL contexts	Oral production of *estar* in grammatical combinations	Oral production of *estar* in SL contexts
IL(only-*ser*) adjectives (e.g. *famoso* 'famous')			68%			
SL(only-*ser*) adjectives (e.g. *contento* 'happy')	91%				68%	
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		77%		68%		42%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		91%		68%		54%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		94%		75%		59%

Table 5.4: Mean percentages of *estar* in the comprehension and production tasks by intermediate learners

By and large, the level of acceptance of *ser* in grammatical and felicitous combinations does not correspond with the copular selection in the focused oral production. To specify, the high acceptance of *ser* in felicitous combinations with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (even reaching a native-like level of acceptance) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts did not correspond with higher rates of oral production of *ser*. Precisely the opposite occurs, and I argue that this high production of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (90%) and dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (91%) in IL contexts is a by-product of the general tendency to choose *ser,* as intermediate learners are unable to strongly reject the ungrammatical and discursively infelicitous combinations of *ser* with these two adjectival groups. In contrast, the acceptance of *estar* in grammatical and felicitous

scenarios correlates more closely with the oral production rates. Thus, the high acceptance of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy'), dual self-standing stage adjectives (e.g. *nervioso* 'nervous') and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') translates as an increase in the oral production of *estar*. Nevertheless, the medium-high results when intermediate learners were asked to rate ungrammatical and infelicitous combinations with *estar* and their medium rates of *estar* selection in the focused production tasks reveal that neither *ser* nor *estar* have been fully acquired. They were not proficient at recognising which combinations were deemed ungrammatical and infelicitous. This vague picture of the copulas manifested itself in the lack of knowledge to identify the ungrammatical and infelicitous combinations. This seems to be related to the overuse of *ser* in combination with SL (only-*estar*) adjectives and dual adjectives that were introduced in discursive contexts where *estar* was the right option during the focused production tasks.

5.1.3 Focused comprehension and production of ser and estar by advanced learners (C1)

The overall results of this study suggest that the acquisition of the Spanish copular alternation is problematic, even at higher levels of language proficiency. It seems that the advanced group in this study had not fully acquired the semantic contrast rooted in the copulas. Despite the high level of acceptance of *ser* in grammatical (i.e. *ser* with IL (only-*ser*) adjectives such as *famoso* 'famous') (97%) and in felicitous copular combinations with dual adjectives (such as *viejo* 'old' (95%), *amable* 'kind' (98%) and *nervioso* 'nervous' (98%)) in IL contexts, as well as the parallel high oral production of *ser* in grammatical clauses (e.g. *famoso* 'famous') (96%) and in felicitous combinations with dual adjectives in IL contexts (i.e. 94% for dual dependent-stage adjectives of physical appearance, 86% for those of disposition and 90% for dual self-standing stage adjectives)*, advanced learners did not achieve a native-like level of acquisition of *ser*. This conclusion is drawn from two facts: firstly, advanced learners are remarkably reluctant to reject *ser* in ungrammatical sentences (i.e. with SL (only-*estar*) adjectives) (69%) (p=.001) and in infelicitous combinations with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (74%) (p<.001) that appeared in SL contexts where *estar* is the appropriate copula. Secondly, advanced learners still misused *ser* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (32%) and those of disposition (e.g. *amable* 'kind') (24%) in SL contexts where the copula

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expected was *estar*.

Nonetheless, it must be said that adavanced learners matched the level of the native control group in the comprehension tasks with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind'), and were able to identify the appropriateness of *ser* for IL contexts (98%) (p=.510) and its inappropriateness for SL contexts (84%) (p=.134). They also performed to native-like standard in the focused oral production task (86%) (p=.067). In contrast, they were less proficient when *ser* was combined with dual dependent-stage of physical appearance (e.g. *viejo* 'old'). They achieved a high level of accuracy in the selection of *ser* in the acceptance of felicitous combinations in the comprehension task (95%) as well as in the production task (94%); however, as previously mentioned, they lagged in the rejection of infelicitous combinations of *ser* in SL contexts (74%) (p<.001).

	SER					
	Acceptance of *ser* in grammatical combinations	Acceptance of *ser* in felicitous combinations in IL contexts	Rejection of *ser* in ungrammatical combinations	Rejection of *ser* in infelicitous combinations in SL contexts	Oral production of *ser* in grammatical combinations	Oral production of *ser* in IL contexts
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	97%				96%	
SL (only-*ser*) adjectives (e.g. *contento* 'happy')			69%			
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		95%		74%		94%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		98%		84%		86%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		98%		82%		90%

Table 5.5: Mean percentages of *ser* in the comprehension and production tasks by advanced learners

As a result, I conclude that advanced learners attained a native-like mental representation of *ser* only with dual self-standing stage adjectives (e.g. *nervioso* 'nervous'), since it is only with this group that they proved to be as skillful as natives at recognising the appropriateness of *ser* in IL contexts (98%) and the inappropriateness of *ser* in SL contexts (82%) (p=.108). This conclusion is further evidenced by results from the focused oral production task, where they achieved 90% of *ser* selection in IL contexts that depicted properties of the subject as such (see Table 5.5) and correspondingly, they selected 90% of *estar* for discursive contexts that portrayed properties that hold true of the individual in relation to a specific circumstance.

Moreover, the results of this study indicate that advanced learners were more accurate with *estar* than with *ser*. Despite the *estar* selection being more varied among the adjectival groups being tested, advanced learners chose *estar* at a level comparable to natives with two adjectival constructions, namely, with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (see Figure 5.6). Mirroring the natives, advanced learners were capable of identifying the adjectives that combine exclusively with *estar* (e.g. *contento* 'happy') (99%) (p=.307) and approached a native-like level when rejecting the ungrammatical combinations with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') (89%). Similarly, they achieved a native-like acceptance of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in those discursive contexts that portrayed properties that hold true of the individual in a given circumstance (i.e. SL contexts) (97%) (p=.381) and were also accurate at the rejection of *estar* with the same adjectival group in IL contexts (83%) (p=.754). These higher results were corroborated by high rates of *estar* selection during the focused oral production tasks. Advanced learners exceeded the 90% accuracy of *estar* selection with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (94%) and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') (90%).

	ESTAR					
	Acceptance of *estar* in grammatical combinations	Acceptance of *estar* in felicitous combinations in SL contexts	Rejection of *estar* in ungrammatical combinations	Rejection of *estar* in infelicitous combinations in IL contexts	Oral production of *estar* in grammatical combinations	Oral production of *estar* in SL contexts
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')			89%			
SL (only-*ser*) adjectives (e.g. *contento* 'happy')	99%				94%	
Dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')		84%		86%		68%
Dual dependent-stage adjectives of disposition (e.g. *amable* 'kind')		90%		84%		76%
Dual self-standing stages adjectives (e.g., *nervioso* 'nervous')		97%		83%		90%

Table 5.6: Mean percentages of *estar* in the comprehension and production tasks by advanced learners

Conversely, although advanced learners were highly proficient at recognising the appropriateness of *estar* and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') (90%) in discursive contexts that depict properties that hold true in a specific circumstance (i.e. SL contexts) and accurately rejected the infelicitous combinations of *estar* in IL contexts with the same adjectival group (84%), they failed to achieve a native-like selection of *estar* in the focused oral production task (76%). They continued to misuse *ser* by 24% in SL contexts where *estar* was the discursively appropriate choice. Nonetheless, advanced learners seem to be more proficient at the copula selection with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') than with those that refer to physical appearance (e.g. *viejo* 'old'). Note that with this adjectival group advanced learners were capable of accepting the felicitous combinations of *estar* in SL contexts (84%) and rejecting the infelicitous combinations

of *estar* in IL contexts (86%), however in the focused oral production task they were highly reluctant to select *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (68%) that were introduced in SL contexts. Thus, these data suggest that even advanced learners overused *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind' and *viejo* 'old') for contexts that discursively require *estar*.

5.2 Assessing the Syntactic Complexity Hypothesis

As shown in Chapter Three, the Syntactic Complexity hypothesis predicts that if L2 acquisition is governed by the syntactic properties of the elements in question, learners have more chances of attaining a native-like acquisition with *ser* and may experience a problematic and delayed acquisition of *estar*, as this is the most complex copula. Recall that the syntactic configuration of *estar* contains an additional layer of prepositional nature that *ser* does not have.

This prediction is not borne out because learners at all levels of L2 proficiency failed to achieve a mental representation of *ser* comparable to that of natives. Overall, they were able to select *ser* for grammatical constructions with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') as well as for felicitous combinations with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') in discursive (IL) contexts that attribute properties to the subject as such. This was the case in both the focused comprehension and oral production tasks. However, it is their reluctance to strongly reject *ser* in ungrammatical clauses with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and in infelicitous combinations of dual adjectives introduced in SL contexts that indicate a divergent mental representation (Sorace, 1993; Papp, 2000). Even advanced learners were not as skillful as natives in their rejection of *ser* in ungrammatical combinations (i.e. SL (only-*estar*) such as *contento* 'happy') (69%) (p=.001). They also deviated significantly from natives in their rejection of *ser* with dual dependent-stage of physical appearance (e.g. *viejo* 'old') (74%) (p<.001) introduced in SL contexts. Further compelling evidence of their divergence was evident in the fact that advanced learners still misused *ser* in combinations with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (32%) and those of disposition (e.g. *amable* 'kind') (24%) in discursive contexts that depict a property that holds true

of the subject in a particular circumstance, that required *estar* (i.e. SL contexts). Thus, it is the L2ers' general preference to select *ser* over *estar* what yields a falsely high accuracy in usage of this copula. This was particularly evident in the focused oral production task.

Nonetheless, the mental representation attained by advanced learners converges with that of natives on dual self-standing stage adjectives (e.g. *nervioso* 'nervous'). They were as proficient as natives at selecting *ser* and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') that were shown in IL contexts (98%)(p=.743) and similarly, they accepted *estar* in SL contexts (96%) (p=.381). Moreover, they also performed to a native-like standard when rejecting the infelicitous combinations of *ser* and dual self-standing stage adjectives in SL contexts (82%) (p=.108) and *estar* in IL contexts (83%) (p=.754). Moreover, they selected 90% of *ser* for IL contexts and 90% of *estar* for SL contexts in the focused oral production task. As a result, advanced learners were sensitive to the copular contrast that copulas yield with one dual adjectival group.

What is more, advanced learners were more accurate with *estar* than with *ser*. They attained a native-like level when *estar* appeared in obligatory distribution. That is, they accepted the grammatical constructions of *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (99%) (p=.307) and rejected the ungrammatical clauses consisting of *estar* and IL (only-*ser*) adjectives (e.g. *famoso* 'famous'). Here, although they significantly deviated from natives (p<.001), they achieved a reasonably high level of proficiency (89%). Furthermore, they chose 94% of *estar* in the focused oral production task.

The results reported here are at odds with previous studies on the L2 acquisition of the Spanish copulas. Some authors such as VanPatten (1985; 1987; and 2010), Ryan and Lafford (1992), Guntermann (1992) and Briscoe (1995) report high rates of frequency of *ser* (above 90%) based on semi-spontaneous oral production tasks, therefore concluding that *ser* is acquired early. As VanPatten states "*ser* seems to take care of itself and can even be considered the default copula for learners" (VanPatten, 2010, p.33). Despite this, these authors also recognised an overuse of *ser* in contexts requiring *estar* and all agreed on the gradual acquisition of *estar* at a stage subsequent to *ser* (Geeslin, 1999; Geeslin, 2003; Geeslin, 2005; Guijarro Fuentes and Geeslin, 2006;

Woolsey, 2008; Long, 2016, to name a few). As a result, the acquisition of *estar* encompasses the learner replacing *ser* in contexts where they have overused it. However, if it were the case that learners fully acquired the syntactic and discursive properties of *ser,* then L2 learners would not raise their accuracy of *ser* with proficiency, something which is particularly evident in felicitous combinations (i.e. *ser* with dual adjectives in IL contexts), as shown in this cross-sectional study. Furthermore, their rejection of *ser* in ungrammatical combinations with SL (only-*estar*) adjectives would not show significant improvement, nor would the infelicitous combinations formed by *ser* and SL contexts, as again the results of this study show.

In fact, most recent studies up to date (Geeslin, 1999; 2003; 2005; and 2014; Geeslin and Guijarro Fuentes, 2006; Woolsey 2008) focused mainly on the L2 acquisition of *estar* because learners are considered to be highly accurate with *ser.* They assessed the L2 copular acquisition in order to find out which predictors favour the occurrence of *estar* for L2 learners. They also measured that learners increased their frequency of *estar* with proficiency. As found in this study, higher levels of proficiency raised L2er's accuracy of *estar.* This was particularly evident in the focused oral production task where learners reproduced a staircase pattern with both SL (only-*estar*) adjectives (e.g. *contento* 'happy') and dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') that were shown in SL contexts.

As demonstrated throughout this thesis, in order to understand the acquisition of the Spanish copulas we cannot only focus on the factors or predictors that solely favour the occurrence of *estar.* The overall results of this experimental study reveal that L2 learners must not only acquire the syntactic and discursive properties of both copular verbs, but must also take into consideration the syntactic and semantic properties of adjectives. When selecting *estar,* advanced learners attained a native-like level with adjectives that behave as a stage especially, and across a larger array of syntactic constructions. To be precise, these constitute SL (only-*estar*) adjectives (e.g. *contento* 'happy') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') that in combination with a SL context select *estar,* but that additionally yield a stage reading (equivalent to that of *estar*) in absolute constructions (as exemplified in (1)–(2)) and predicative complements of the subject (as in (3)–(4)) and the object (see (5)–(6)).

Absolute constructions

(1) ***Contento** con la oferta, Pedro aceptó el trabajo.*
    Happy with the offer, Pedro accepted the job.
    'Happy with the offer, Pedro accepted the job.'

(2) ***Nervioso**, Pedro derramó el café.*
    Nervous, Pedro spilt the coffee.
    'Nervous, Pedro spilt the coffee.'

Predicative complements of the subject

(3) *Pedro **llegó contento** a la oficina.*
    Pedro arrived$_{PRETERITE-3SG}$ **happy** to the office.
    'Pedro arrived at the office happy.'

(4) *Pedro **llegó nervioso** a la oficina.*
    Pedro arrived$_{PRETERITE-3SG}$ **nervous** to the office.
    'Pedro arrived at the office nervous.'

Predicative complements of the direct object

(5) ***Veo** a Ana$_i$ muy **contenta**$_i$.*
    I-see$_{PRESENT-1SG}$ to Ana very **contenta**.
    'Ana looks very happy to me.'

(6) ***Noto** a Ana$_i$ muy **nerviosa**$_i$.*
    I-notice$_{PRESENT-1SG}$ to Ana very **nervous**.
    'Ana looks very nervous to me.'

In contrast, learners did not attain a native level of *estar* with dual dependent-stage adjectives that refer to physical appearance (e.g. *viejo* 'old') and dispositions (e.g. *amable* 'kind'), although their acceptability ratings of *estar* in felicitous SL contexts were higher with the latter group. Moreover, this deviation from the native control group correlates with a significantly low oral production. Advanced learners failed to produce *estar* at rates above 90% with the same dual dependent-stage adjectives. They showed lower production rates of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (68%) and those of disposition (e.g. *amable* 'kind') (76%). These results provide a solid evidence of L2 residual optionality where *ser* is overused in inappropriate contexts where the expected copula is *estar*. Thus, as we can see in the focused oral production task, learners showed protracting difficulties in selecting *estar*

with adjectives that only refer to a stage in fewer syntactic enviroments (i.e. in combination with *estar* and as part of object predicative complements) but not in absolute constructions (as portrayed in (7)–(9)) and subject predicative complements (as illustrated in (10)–(12)). These results indicate that L2 learners treated dual-dependent stage adjectives closer to classificatory relational adjectives (as IL (only-*ser*) adjectives) rather than dual adjectives.

Absolute constructions

(7) ***Famoso,** Alejandro ignoraba a los periodistas.*
　　Famous, Alejandro ignored$_{\text{IMPERFECT-3SG}}$ the journalists.
　　'Famous, Alejandro ignored the journalists.'

(8) ***Viejo,** Alejandro dejó de jugar al fútbol con sus nietos.*
　　Old, Alejandro stopped$_{\text{PRETERITE-3SG}}$ of play$_{\text{INFINITIVE}}$ to-the football with his grandchildren.
　　'Old, Alejandro stopped playing football with his grandchildren.'

(9) ***Amable**, Alejandro saludó a los invitados.*
　　Kind, Alejandro greeted$_{\text{PRETERITE-3SG}}$ to the guests.
　　'Kind, Alejandro greeted the guests.'

Predicative complements of the subject

(10) **Alejandro _llegó famoso_ a la oficina.*
　　Alejandro arrived$_{\text{PRETERITE-3SG}}$ **famous** to the office.
　　'Alejandro arrived at the office famous.'

(11) **Alejandro _llegó viejo_ a la oficina.*
　　Alejandro arrived$_{\text{PRETERITE-3SG}}$ **old** to the office.
　　'Alejandro arrived at the office old.'

(12) **Alejandro _llegó amable_ a la oficina.*
　　Alejandro arrived$_{\text{PRETERITE-3SG}}$ **kind** to the office.
　　'Alejandro arrived at the office kind.'

To recapitulate, the Syntactic Complexity hypothesis predicts that if L2 acquisition is affected by the complexity of the syntactic configuration of the Spanish copulas themselves, then *ser* will be acquired earlier as this is the copula that projects a configuration with fewer structural elements. By contrast, L2 learners will exhibit a

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problematic acquisition of *estar* since this copula carries an extra prepositional element. This prediction is not borne out by the results of this experimental study. Despite the high accuracy rates of *ser* in the focused oral production task, learners at all levels of proficiency still misused *ser* in contexts where the expected copula is *estar* (i.e. in combination with SL (only-*estar*) adjectives and with dual adjectives in SL contexts) which evinced that *ser* has not been completely acquired. Moreover, L2 learners failed to strongly reject *ser* in ungrammatical combinations (i.e. SL (only-*estar*) adjectives) and discursively infelicitous combinations with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old').

The results of this study indicate that in the acquisition of the Spanish copular alternation, not only the syntactic and discursive properties of the copulas but also the syntactic properties of the adjectival predicates need to be taken into account. Advanced learners achieved a native-like mental representation of the copular alternation with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') that by themselves may occupy other syntactic contexts yielding a stage reading (along the lines of *estar*), such as absolute constructions and predicative complements. By contrast, learners exhibited difficulties with dual dependent-stage adjectives (e.g. *viejo* 'old' and *amable* 'kind') that have a more restrictive distribution, that is, they denote a stage only in combination with *estar* and object predicative complements, rendering their insertion in absolute constructions and predicative complements of the subject ungrammatical.

5. 3 Assessing the Interface Hypothesis

The Interface Hypothesis (Sorace, 1993; 2000; and 2005; Sorace and Filiaci, 2006; Guijarro Fuentes and Marinis, 2007; Sorace, 2011, among others) posits that linguistic phenomena that involve one module of the grammar (e.g. syntax) can be fully acquirable in an L2, while interface phenomena that encompass information from different modules of the grammar (e.g. the syntax-pragmatics, syntax-semantics) will be more vulnerable to variability and fossilization. Indeed, even very proficient L2 learners are expected to exhibit residual optionality with interface phenomena. According to Sorace (1993), when interface phenomena are involved, near-natives can either achieve a divergent mental representation (i.e. a representation that differs significantly from the native one) or an incomplete mental representation that lacks properties instantiated in

the L1.

The predictions that this hypothesis makes with respect to the L2 acquisition of the Spanish copular verbs *ser* and *estar* are as follows: firstly, learners will reach a native-like level when the copular distribution presents an obligatory distribution, that is, when *ser* combines with IL (only-*ser*) adjectives (e.g. *famoso* 'famous') and when *estar* appears with SL (only-*estar*) adjectives (e.g. *contento* 'happy'). Similarly, they are expected to be capable of recognising ungrammatical combinations (i.e. *ser* with SL (only-*estar*) adjectives and *estar* with IL (only-*ser*) adjectives). Secondly, learners will exhibit prolonged difficulties when the copulas are in combination with dual adjectives (e.g. dual dependent-stage adjectives such as *viejo* 'old' and *amable* 'kind', and dual self-standing stage adjectives such as *nervioso* 'nervous') since these adjectives are grammatically able to appear with the two copulas and it is the discursive context the factor that decides the appropriate copular selection. In these instances, the difficulty for L2 learners lies in evaluating the appropriateness of the copula with respect to a given discursive context. They need to assess whether the syntactic properties of the copula match the type of context. More precisely, *ser* will be the discursively appropriate copula of IL contexts that depict a property of the individual as such, while *estar* will be felicitous in contexts that describe a property that holds true of the subject in a circumstance.

The predictions of the Interface Hypothesis are not borne out in this study. Overall, learners at all levels of language proficiency were capable of identifying both grammatical combinations (i.e. *ser* with IL (only-*ser*) adjectives and *estar* with SL (only-*estar*) adjectives) and felicitous combinations with dual adjectives (e.g. *viejo* 'old', *amable* 'kind' and *nervioso* 'nervous') that were introduced in IL and SL contexts, at a high rate. In this sense, the comprehension results of this study converge with the ones found in Bruhn de Garavito and Valenzuela (2008). More precisely, advanced learners achieved a native-like level of acceptance when the copular distribution was obligatory (i.e. they identified the grammatical sentences formed by *ser* with IL (only-*ser*) adjectives (97%) and *estar* with SL (only-*estar*) adjectives (99%)) just as they took into consideration the syntactic and pragmatic information in order to select the felicitous copula in accordance with the discursive context.

However, it should be noted that although advanced learners attained a native-like performance when the copulas involved a syntactic-pragmatic interface, they were not equally successful with all types of dual adjectives. They achieved a target-level of comprehension with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL and SL contexts (98% and 97%, respectively) and dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL and SL contexts (98% and 90%, respectively), but they failed to distinguish, to a native-like level, the copular contrast found with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (95% and 84%, respectively). These results indicate that the problem cannot be solely localized at the interface since advanced learners were able to achieve a native-like level with two types of dual adjectives, but not with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old'). Furthermore, the low results of dual dependent-stage adjectives of physical appearance align with the ones found in Pinto and Guerra Rivera (2015). In a study with fourteen Dutch learners of Spanish, they also reported a non-target acceptance with a similar set of adjectives (i.e. *flaco* 'thin', *largo* 'long', *grande* 'big', *viejo* 'old' and *gordo* 'fat'), which they called irreversible scalar gradable adjectives. As will be reiterated below, the reason argued here for such behaviour is that this group of adjectives has properties that make them pattern closer to IL (only-*ser*) adjectives (e.g. *famoso* 'famous'), such that they cause ungrammaticality in other syntactic constructions such as absolute constructions and predicative complements of the subject, as shown before.

A closer look at the rejection of ungrammatical sentences (i.e. *ser* with SL (only-*estar*) adjectives and *estar* with IL (only-*ser*) adjectives) and discursively infelicitous combinations (i.e. *ser* with dual adjectives in SL contexts and *estar* with dual adjectives in IL contexts) shows that, while advanced learners became native-like in the rejection of *estar,* they exhibited difficulties to reject *ser* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') (69%) and likewise, with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') (74%). Thus, their unwillingness to reject *ser* goes beyond interface phenomena (i.e. beyond the copular alternation with dual adjectives), since they were even more ambivalent with adjectives that have a fixed distribution than with dual dependent-stage adjectives of physical appearance.

Finally, the production results show that advanced L2 learners reach native-like levels with grammatical sentences (i.e. selecting *ser* with IL (only-*ser*) adjectives (96%) and *estar* with SL (only-*estar*) adjectives (94%)), and they also chose the discursively appropriate copula with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL and SL contexts (90% and 90%, respectively). That is, they mastered information from one module of the grammar with the same proficiency as they integrated satisfactorily information proceeding from two modules (i.e. the syntax-pragmatics interface). Nonetheless, the copular alternation has not been completely acquired with the other two types of dual adjectives tested in this study. They scored a high accuracy for discursive contexts where *ser* was required (i.e. dual dependent-stage adjectives of physical appearance (94%) and dual dependent-stage of disposition (86%) but still misused this copula in SL contexts where *estar* is the appropriate copula (i.e. dual dependent-stage adjectives of physical appearance (32%) and dual dependent-stage of disposition (24%)).

To summarise, the results of this experimental study evince that interface phenomena can be partially acquirable in an L2. Nonetheless, as advanced learners attained a target-performance with only one type of dual adjectives (i.e. dual self-standing stage adjectives) and not with the other two (i.e. dual dependent-stage adjectives of physical appearance and those of disposition), I argue that the difficulty must not lie solely in the integration of information proceeding from different modules of the grammar but in the syntactic properties of the adjectives themselves, as the Interface Hypothesis postulates.

Indeed, I argue that the syntactic properties of adjectives themselves affect the learners' copular selection since they attained a native-like level precisely with those adjectives that are able to denote to a stage (as *estar* does) in a wider array of syntactic constructions. That is, they relied on *estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy') and dual self-standing stage adjectives (e.g. *nervioso* 'nervous') that can yield a stage reading in absolute constructions and predicative complements of the subject and object. Similarly, they successfully distinguished when to use *ser* and *estar* in

combination with dual self-standing stage adjectives that appear in contrasting discursive contexts.

By contrast, advanced learners failed to reach native-likeness with those adjectives that have a more restrictive syntactic distribution and only denote a stage in combination with *estar* and in object predicative complements. Hence, despite being dual adjectives, learners were reluctant to employ *estar*. I attribute this to the fact that the syntactic properties of dual-dependent stage adjectives of physical appearance (e.g. *viejo*) and to a lesser degree, those of disposition (e.g. *amable*) align closer to those of IL (only-*ser*) adjectives (e.g. *famoso* 'famous') than to the ones of dual dependent-stage adjectives (e.g. *nervioso* 'nervous').

5.4 Pathway of acquisition

This experimental study aimed to investigate the pathway of L2 acquisition of the copular verbs *ser* and *estar* by adult English-speaking learners of Spanish. At issue is whether the syntactic or discursive properties of *ser* and *estar* decide their acquisition in an L2. In addition, the Spanish copulas provide an excellent testing ground to evaluate whether linguistic phenomena that integrate information from core syntax and discursive-related information can eventually be acquired to a native-like level. The three research questions that motivated this research were the following:

(13) Is the pathway of L2 acquisition affected by the syntactic properties of the Spanish copular verbs?

(14) Is the pathway of L2 acquisition affected by the discursive properties of the Spanish copular verbs?

(15) Can linguistic phenomena that involve the interplay between syntax and pragmatics be acquired to a native-like level?

With regard to the pathway of L2 acquisition of *ser* and *estar,* the results of this

experimental study suggest that the syntactic and discursive properties of the copulas played an important role but that they are not sufficient to explain its L2 acquisition. Bearing this in mind, I insist that the syntactic properties of the adjectival predicates need to be taken into consideration. Here I put forward a tentative order of acquisition that rests on a combination between the comprehension and oral production results. As Table 5.7 illustrates, at a beginner level (A1-A2), learners were able to distinguish the copular alternation with dual adjectival predicates that were presented in a discursive context with greater accuracy than when the copulas have a fixed distribution (i.e. IL (only-ser) adjectives such as *famoso* 'famous') and SL (only-*estar*) adjectives such as *contento* 'happy').

Ser and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL and SL contexts	<	*Ser* and *estar* with dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind') in IL and SL contexts	<	*Ser* and *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL and SL contexts	<	*Ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	<	*Estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')

Table 5.7: Order of copular acquisition with adjectival predicates by beginners (A1-A2)

In contrast, as Tables 5.8 and 5.9 depict, the order of acquisition followed by intermediate and advanced learners changes considerably. Learners became more proficient when the copulas are combined with adjectival predicates that have a wider syntactic distribution, specifically with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') and SL (only-*estar*) adjectives (e.g. *contento* 'happy'). These adjectives are characterized by being able to function as a stage in other syntactic constructions such as absolute constructions and subject predicative complements. In turn, learners failed to attain a native-like copular alternation with dual dependent-stage adjectives of physical appearance and of disposition (e.g. *viejo* 'old' and *amable* 'kind', respectively) since these adjectives are more restrictive syntactically. They can only denote a stage in combination with *estar* and object predicative complements but not in other syntactic constructions (i.e. absolute constructions and subject predicative complements). In this respect, dual dependent-stage level adjectives seem to pattern closer to IL (only-*ser*) adjectives (e.g. *famoso* 'famous'). What is more, both intermediate and advanced

learners do not achieve an full acquisition of *ser* because they were remarkably reluctant to reject *ser* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') that appear in SL contexts and when *ser* is combined with SL (only-*estar*) adjectives (e.g. *contento* 'happy'). This high reluctance shows that *ser* has not been completely acquired and as a result, learners tended to misuse *ser* in contexts where the copula expected is *estar*.

Ser and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL and SL contexts		*Estar* with SL (only-*estar*) adjectives (e.g. *contento* 'happy')		*Ser* and *estar* with dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind') in IL and SL contexts		*Ser* and *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL and SL contexts		*Ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')
	<		<		<		<	

Table 5.8: Order of copular acquisition with adjectival predicates by intermediate learners (B1-B2)

Estar with SL (only-*estar*) adjectives (e.g. *contento* 'happy')		*Ser* and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL and SL contexts		*Ser* and *estar* with dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind') in IL and SL contexts		*Ser* and *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL and SL contexts		*Ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous')
	<		<		<		<	

Table 5.9: Order of copular acquisition with adjectival predicates by advanced learners (C1)

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5.5 Limitations and areas of future study

As part of the research itself, I would now like to address the limitations of this empirical study, as well as the potential avenues of investigation. A shortcoming of this study concerns the discursive contexts created to test the knowledge of copular clauses with dual adjectives in the oral production task. In particular, it was a challenge to create different contexts for three synonymous dual self-standing stage adjectives (i.e. *nervioso* 'nervous', *intranquilo* 'restless', *inquieta* 'restless' illustrated in items 16, 21 and 29 of the Appendix B.4). In addition, the fact that native speakers preferred to select *estar* for IL contexts where *ser* was expected in certain scenarios (e.g. *delgada* 'slim', *tonta* 'silly', *nervioso* 'nervous' and *intranquilo* 'restless' employed in items 18, 31, 16 and 21 of the Appendix B.4), here explained as the evidential use of *estar* (as proposed by Roby, 2009) could be addressed in the future by adding longer comments (e.g. tag questions or exclamations, as was the original pilot design). The inclusion of small dialogues where several people make similar comments could also be a possibility, in order to reinforce that the individual in question can be classified in a particular way according to more than one individual. To illustrate, in item 16 (see Appendix B.4) the teacher could say that the student is a nervous kind of child and the parent supports this with another comment.

Another issue that merits further analysis pertains to the syntactic properties of the set of dual dependent-stage adjectives of disposition. As pointed out to me by María J. Arche (2016, p.c.), some of these adjectives are evaluative (e.g. *amable* 'kind', *generoso* 'generous', *raro* 'weird', *tonto* 'silly', *serio* 'serious') and are therefore able to appear in pseudo-clefts with *do* (see Arche, 2006). In contrast, *vago* 'lazy' gives ungrammatical results in the same sentences, as illustrated in (12).

(11) *Lo que Daniel hizo **fue/?*estuvo amable**.*
What Daniel did be_{SER/ESTAR-PRETERITE-3SG} **kind**.
'What Daniel did was kind.'

(12) *Lo que Daniel hizo ***fue/*estuvo vago**.*
What Daniel did be_{SER/ESTAR-PRETERITE-3SG} **lazy**.
'What Daniel did was lazy.'

Another limitation relates to the degree of experimental control in the task design. It would be interesting to compare two types of tasks: one focused oral task – such as the one designed in this study, where learners need to interpret the context in relation to the property– and another in which the participant reads two contrasting contexts of two different subjects (with their corresponding comment) and must decide what they would say using the same dual adjective for two different individuals. As after a certain number of items participants may guess the aim of the task, I suggest that distractors should be included and the order of items altered among the participants. Additionally, as all items in this study were specifically created to assess the knowledge of copular clauses in the third person singular of the Present tense (i.e. *es* and *está* both meaning 'is') relying on unknown characters, in the future I suggest that other personal forms are also tested.

The areas that I consider that need to be further investigated include assessing the knowledge of copular contrast with adjectival predicates among other populations, such as near-natives living in a Spanish-speaking country, Spanish heritage speakers and L1 Spanish-speaking children. The results of this study lead to the question of whether at L2, ultimate attainment learners reach a native-like competence with all types of adjectival predicates or if instead, they still tend to overuse *ser* with those adjectives that refer to a stage only in combination with *estar* and object predicative complements (i.e. with dual dependent-stage adjectives of physical appearance such as *viejo* 'old' and those of disposition such as *amable* 'kind'). Additionally, future studies may address the knowledge of the copular contrast among heritage Spanish language speakers, since as it has been shown in the literature (Silva-Corvalán, 1986) they tend to overuse *estar* with dual dependent-stage adjectives of physical appearance in particular. To illustrate, in (13) (example taken from Silva-Corvalán, 1986, p.589) the speaker chose *estar* to attribute a property to the individual as such, when for the Peninsular Spanish speaker the copula expected is *ser*. This begs the question of whether heritage speakers treat *ser* and *estar* as synonyms with all types of adjectival predicates, or if only with dual dependent-stage adjectives.

(13) *Pero yo **estoy** inteligente y muy guapo y no te puedo tener todo.*

But I **am** ᴇꜱᴛᴀʀ-ᴘʀᴇꜱᴇɴᴛ-3ꜱɢ intelligent and very handsome and I can't have everything.

'But I'm intelligent and very handsome and I can't have everything.'

Furthermore, as we have seen that L2 learners have no problems in processing information syntactic and pragmatic information, a possible avenue of research would be to investigate whether L2 learners are capable of linking *ser* to IL constructions (e.g. the postnominal modification of adjectives) and *estar* to SL constructions (e.g. absolute constructions and object predicative complements) without the provision of contextual information. Finally, I also would like to highlight the pedagological implications of this empirical study. Both the adjectival classification and the syntactic tests could be employed for teaching the semantic constrast that the copulas yield. Similarly, the elicitation tasks could be used for teaching.

5.6 Conclusions

The results exposed and analysed above lead us to reach two unexpected and novel conclusions, when compared to previous wisdom: firstly, the acquisition of copular clauses that determined by syntactic factors only (whereby adjectives display fixed combinations with one copula or the other as occurs with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives) cannot be said to be better acquired as a whole than the distribution that is context-dependent with dual adjectives. Secondly, this conclusion has been arrived at because *ser* does not seem to be acquired fully even at high levels of proficiency, even in fixed distribution cases, since learners are reluctant to reject it in ungrammatical as well as in infelicitous cases. This result goes against the conclusions and tenets entertained by most of previous authors in acquisition of the copulas, who argue that by being the simplest syntactically, "*ser* can take care of itself" (VanPatten, 2010). If this were the case, successful rejection should have been pervasive, since having acquired the semantics of *ser* would mean recognizing the contexts and structures where it is not allowed.

Unlike a number of previous studies (VanPatten, 1985; Briscoe, 1995; Geeslin, 1999; Geeslin, 2003; Geeslin and Long, 2015; Long, 2016, to name a few), which have

established classes of adjectives hinging upon semantic properties that could be better or worse indicators of the permanent/transitory dichotomy, I have shown that what lies at the root of the L2 acquisition of the copulas is the syntactic and semantic characteristics of the adjectives that can be proven to be at work in a number of independent syntactic structures, such as absolute clauses and predicative complements.

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APPENDIX A

Syntactic tests where only one copular reading emerges

A.1 Syntactic tests for *ser*

A.2 Syntactic tests for *estar*

SER	Syntactic tests		
	Exclamations with qué 'what'	**Small clause complements of parecer 'to seem'**	**Adjectival modification of the determiner phrase**
Adjectives compatible with ser	**Individual-Level (only-ser) adjectives**		
	alérgico 'allergic', *bilingüe* 'bilingual', *culpable* 'guilty', *extranjera* 'foreign', *famoso* 'famous' and *vegetariana* 'vegetarian'	*¡Qué famoso, María!* 'What a famous person María (is)!'	*María parece famosa.* 'María seems famous.'	*Una persona famosa* 'A famous person'
Adjectives compatible with both copulas	**Dual dependent-stage adjectives of physical appearance**		
	delgado 'slim', *feo* 'ugly', *guapo* 'handsome', *grande* 'big', *joven* 'young' and *viejo* 'old'	*¡Qué viejo, Juan!* 'What an old person Juan (is)!'	*Juan parece muy joven.* 'Juan seems very young'	*Una persona vieja* 'An old person'
	Dual dependent-stage adjectives of disposition		
	amable 'kind', *generoso* 'generous', *raro* 'weird', *serio* 'serious', *tonto* 'silly' and *vago* 'lazy'	*¡Qué amable, Luis!* 'What a kind person Luis (is)!'	*Luis parece muy amable.* 'Luis seems very kind.'	*Una persona amable* 'A kind person'
	Dual self-standing stage adjectives		
	alegre 'cheerful', *feliz* 'happy', *nervioso* 'nervous', *inquieto* 'restless', *intranquilo* 'restless' and *tranquilo* 'calm'	*¡Qué nervioso, Pedro!* 'What a nervous person Pedro (is)!'	*Pedro parece muy nervioso.* 'Pedro seems very nervous.'	*Una persona nerviosa* 'A nervous person'

Figure A.1. Syntactic tests used to identify *ser*.

ESTAR		Syntactic tests		
		Object predicative complements	**Subject predicative complements**	**Absolute constructions**
Adjectives compatible with estar	**Stage-Level (only-estar) adjectives**			
	borracha 'drunk', *contento* 'happy', *desnudo 'naked', furiosa* 'furious', *enfermo* 'ill' and *sola* 'alone'	*Veo a María enferma.* 'To me María looks ill.'	*María llegó a la oficina enferma.* 'María arrived at the office ill'	*Enferma, María no fue al trabajo.* 'Ill, María, did not go to work.'
Adjectives compatible with both copulas	**Dual dependent-stage adjectives of physical appearance**			
	delgado 'slim', *feo* 'ugly', *guapo* 'handsome', *grande* 'big', *joven* 'young' and *viejo* 'old'	*Veo a Juan muy viejo.* 'To me Juan looks very old.'	**Juan llegó a la oficina viejo.* 'Juan arrived at the office old'	**Viejo, Juan se jubilará.* 'Old, Juan will retire'
	Dual dependent-stage adjectives of disposition			
	amable 'kind', *generoso* 'generous', *raro* 'weird', *serio* 'serious', *tonto* 'silly' and *vago* 'lazy'	*Veo a Luis muy amable.* 'To me Luis looks very kind'	**Luis llegó a la oficina amable.* 'Luis arrived at the office kind'	**Amable, Luis me abrió la puerta.* 'Kind, Luis opened the door for me.'
	Dual self-standing stage adjectives			
	alegre 'cheerful', *feliz* 'happy', *nervioso* 'nervous', *inquieto* 'restless', *intranquilo* 'restless' and *tranquilo* 'calm'	*Veo a Pedro muy nervioso.* 'To me Pedro looks very nervous.'	*Pedro llegó a la oficina nervioso.* 'Pedro arrived at the office nervous.'	*Nervioso, Pedro derramó el café.* 'Nervous, Pedro spilt the coffee.'

Figure A.2. Syntactic tests used to identify *estar*.

APPENDIX B

Experimental materials

B.1 Informed consent form

B.2. Background questionnaire

B.3 Oral production task with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives

B.4 Oral production task 2 with dual adjectives

B.5 Written comprehension task 3 with dual adjectives

B.6 Written comprehension task 4 with IL (only-*ser*) adjectives and SL (only-*estar*) adjectives

B.1 Informed consent form

Research Project:	The Acquisition of Alternation in a Second Languag
Institution:	University of Greenwich
Address:	Old Royal Naval College, 30 Park Row,
	London SE10 9LS
Researcher:	Patricia Vázquez López

Informed consent to participate in a research study

We are inviting you to take part in a research study. This form will tell you about the study, but the researcher will explain it to you first. You may ask her any questions that you have. When you are ready to make a decision, you may tell the researcher if you want to participate or not. You do not have to participate if you do not want to.

1. Why am I being asked to take part in this research study?

We are asking you to be in this study because you are an adult English-speaking undergraduate who studies Spanish at a British university.

2. Why is this research study being done?

The purpose of this study is to investigate the acquisition of the Spanish copular verbs *ser* and *estar* by adult English-speaking learners of Spanish. This research will contribute to attain a clearer view of the second language learner's mental representation of Spanish at each level of proficiency (elementary, intermediate and advanced levels). The results of this study will allow us to respond two main research questions: 1) identify the acquisition path for the Spanish copulas in a second language, 2) determine if advanced L2 learners are able to acquire a native-like proficiency with the Spanish copulas.

3. What will I be asked to do?

Prior to taking part in this language experiment, you need to complete the following placement test:

Online Spanish placement test	This is a placement test designed by the Spanish Cervantes Institute: http://ave.cervantes.es/prueba_nivel/registro/test_de_clasificacion.php

Then, we will provide you with a background questionnaire and four language tasks to complete.

Written background questionnaire	It includes questions about personal information (e.g., name, nationality, age, level of education) and your linguistic history (e.g., your native language and the foreign languages that you can speak).
Oral production task	Answer in Spanish 12 questions. This task will be **audio-recorded**.
Oral production task	Read 36 paragraph-length contexts to yourself and answer out loud the corresponding question in Spanish. This task will be **audio-recorded**.
Written comprehension task	Rate the adequacy of pairs of sentences according to 36 contexts.
Written comprehension task	Rate how good or bad 24 Spanish sentences sound to you.

4. Where will this take place and how much of my time will it take?

This study will take approximately one hour, and will be completed at your university, immediately after you agree to participate.

5. Will there be any risk or discomfort to me?

This research involves very little risk. There is a minute risk of psychological stress, in that participants may initially fear that they will be judged for their responses. However, your anonymity will be maintained, and results will be looked at as a group, rather than yourself as an individual.

6. Will I benefit by being in this research?

The experience is expected to be informative, inherently interesting and generally a positive experience.

7. Will I be paid for my participation?

There is no monetary payment for your participation.

8. Will it cost me anything to participate?

There is no cost for participation.

9. Who will see my personal data?

All personal information will be kept secured in a database and will only be accessible by the researcher and supervisors (see section 12).

10. Why and how will be my personal data processed?

Personal data are collected to describe your individual characteristics of the participants (i.e., age, gender, nationality, place of residence and level of education) as well as, your linguistic abilities (i.e., native language and your proficiency in other foreign languages). This sensitive information will not be used for another purpose other than a research purpose. You will also have the right to have access to the information obtained about you at all times.

Abiding by the Data Protection Act 1998, all the personal data resulting from this research will be used fairly and lawfully. Anonymity will be preserved. Your personal data will be archived and kept confidentially in an electronic database. Only the researcher and supervisors will have the right of access to this data and will commit not to discuss with other individuals outside the experiment any issue that may allow your identification. Personal information will not be disclosed to any third party, except within the terms of the Act.

11. Can I stop my participation in this study?

Your participation in this research is completely voluntary. You can withdraw your participation at any moment without penalty. If you do not participate or if you decide to quit, you will not lose any rights as an undergraduate student. This decision will not affect by any means your final grade in Spanish.

12. Who can I contact if I have questions or problems?

If you have any questions about this study, please feel free to contact Patricia Vázquez López at P.VazquezLopez@greenwich.ac.uk, the person responsible for the research. You can also contact Dr. María J. Arche at M.J.Arche@greenwich.ac.uk and Prof. Alessandro Benati at A.Benati@greenwich.ac.uk.

13. Who can I contact about my rights as a participant?

If you have any questions about your rights in this research, you may contact:

Secretary, University Research Ethics Committee
c/o Vice Chancellor's Office
Queen Anne Court
University of Greenwich
Old Royal Naval College
Park Row
Greenwich
London SE10 9LS
Tel.: 020 8331 8842
E-mail: researchethics@gre.ac.uk

B.2. Background questionnaire.

UNIVERSITY *of* GREENWICH

This information will be kept confidential and anonymous.

I. **To be completed by the researchers**	Participant Identification Number	

II. Personal Information

Name	Surname
Date and Place of Birth	Place of Residence (City, Country)

III. Level of Education

1. What is the highest level of education that you have completed? In the case of not having finished your Bachelor's degree or PhD programme, please specify the year you are enrolled in.

□ Undergraduate student (Year __)	Bachelor's Degree	Master's degree	PhD candidate (Year ___)	PhD

2. What Bachelor's degree or PhD Programme are you currently enrolled in?

IV. Your linguistic background

3. What is your mother language?

_____

4. In what language did you first learn to read?

_____

5. What is your parents'/ caregivers mother language?

_____

6. What language/s do your parents/caregivers' use mostly when speaking to you?

_____

7. What language/s do you use mostly when speaking to your parents/caregivers?

_____

8. What foreign languages can you speak? At what age did you start to learn them?

_____

9. How long have you been studying Spanish?

_____

10. What level of Spanish are you currently enrolled in?

Spanish 1 (A1)	Spanish 2 (A2)	Spanish 3 (B1)	Spanish 4 (B2)	Spanish 5 (C1)

11. Do you have any qualification that certifies your level of Spanish (e.g., Spanish GCSE, A-Levels, DELE Spanish Diploma)? _____

If yes, please specify the level._____

12. Do you remember the nationality of your Spanish teachers?_____
    If yes, please specify his/her nationality._____

13. What Spanish dialect are you more familiar with?

☐ **Andean-Pacific** (Bolivia, Colombia, Ecuador, Peru and western Venezuela)	☐ **Chilean**	☐ **Peninsular** (Spain)
☐ **Caribbean** (Cuba, Dominican Republic, Puerto Rico, Venezuela)	☐ **Mexican**	☐ **Rioplatense** (Argentina, Paraguay and Uruguay)

14. Have you ever been to any Spanish-speaking country? _____
    If yes, what country and for how long. _____
    _____

V. Your linguistic proficiency in the foreign languages that you can speak

15. On a scale from basic to native command, rate your linguistic skills in Spanish and in any other foreign language that you can speak.

Basic User		Independent User		Proficient User	
A1	**A2**	**B1**	**B2**	**C1**	**C2**
Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details.	Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping). Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. Can describe in simple terms aspects of his/her background in the past.	Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. Can produce simple connected text on topics which are familiar or of personal interest. Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.	Can understand the main ideas of complex text on both concrete and abstract topics. Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and independent disadvantages of various options.	Can understand a wide range of demanding, longer texts. Can express him/herself fluently and spontaneously without much obvious searching for expressions. Can use language flexibly and effectively for social, academic and professional purposes. Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organisational and cohesive connectors.	Can understand with ease virtually everything heard or read. Can summarise information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of Proficient meaning even in more complex situations.
Reading 1	2	3	4	5	6
Listening 1	2	3	4	5	6
Writing 1	2	3	4	5	6
Speaking 1	2	3	4	5	6

Reference Levels from the *Common European Framework of Reference for Languages* (2001:24)

B.3 Oral production task 1 (with IL (only-*ser*) adjectives and SL (only-*estar* adjectives))

Answer the following Spanish questions using the word in the blue box. Follow the example:

Example: ¿Por qué no quiere comer postre Elena? Why doesn't Elena want to eat dessert?	**llena** *full*
	Porque Elena está llena.

Example: ¿Por qué la mayoría de los estudiantes adora a Juan? Why does the majority of students adore Juan?	**justo** *fair*
	Porque Juan es justo.

(1) ¿Por qué reconoce la gente a Miguel por la calle? Why do people recognize Miguel on the street?	**famoso** *famous*

(2) ¿Por qué no come carne Alicia? Why doesn't Alicia eat meat?	**vegetariana** *vegetarian*

(3) ¿Por qué no ha venido Martín a clase? Why didn't Martín come to class?	**enfermo** *sick*

(4) ¿Por qué tiene frío David? Why is David cold?	*desnudo* *naked*

(5) ¿Por qué ha dado un portazo Sofía? Why did Sofía slam the door?	*furiosa* *furious*

(6) ¿Por qué habla tan bien español e inglés Paula? Why does Paula speak Spanish and English so well?	*bilingüe* *bilingual*

(7) ¿Por qué no se cambia de trabajo Fernando? Why doesn't Fernando change jobs?	*contento* *happy*

(8) ¿Por qué no come marisco Luis? Why doesn't Luis eat seafood?	*alérgico* *allergic*

(9) ¿Por qué tienes que acompañar a Carmen a su casa? Why do you have to bring Carmen home?	*borracha* *drunk*

(10) ¿Por qué va Pedro a la cárcel?
    Why is Pedro going to prison?

culpable

guilty

(11) ¿Por qué necesita un visado Sara?
    Why does Sara need a visa?

extranjera

foreign

(12) ¿Por qué llora Cristina?
    Why is Cristina crying?

sola

alone

B.4 Oral production task 2 (with dual adjectives)

Step 1. Read the situation and the comment out loud.

> Miguel has a hectic lifestyle because he has two full-time jobs. But as he loves sport, every day he wakes up at four in the morning to exercise for an hour.
>
> One of his friends makes the following comment:
>
> ¡Qué **activo,** Miguel!
>
> *active*

Step 2. Then the researcher will ask you a question in Spanish such as the one opposite.

> **¿Qué dice el amigo de Miguel?**
> What does Miguel's friend say about him?

Step 3. Complete the sentence in Spanish using the word in the green box as in the example given. You will need to say the sentence out loud to the researcher.

> **EXAMPLE:** *Dice que Miguel es activo.*
> (He) says that Miguel is active.

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1) Alejandro's grandfather has appeared in the local newspaper because he has just celebrated his 100th birthday. His family takes pride in the fact that he still has a very sharp mind.

When reading the news, a friend exclaims:

¡Qué **viejo,** tu abuelo!

old

2) Silvia has been worrying about her health since a blood test showed abnormalities. She has been tested again and needs to wait for another two weeks for the final results.

Her boss, who doesn't know anything about this, says:

Veo a Silvia muy **intranquila.**

restless

¿Qué dice el amigo del abuelo de Alejandro?
What does Alejandro's friend say about his grandfather?

Dice que…

¿Qué dice la jefa de Silvia?
What does Silvia's boss say about her?

Dice que…

3) At a friend's wedding, Ana points out to Isabel a friend called Luis that she would like to introduce her to, as neither has a partner. Isabel declines the offer because she doesn't like his appearance and says:

Luis me parece muy **feo.**

ugly

4) Today Daniel has one of the most difficult exams of his degree. Unlike many of his classmates, he doesn't seem worried because he has been studying for it throughout the academic year.
One classmate makes the following comment:

Noto a Daniel muy **tranquilo.**

calm

¿Qué dice Isabel de Luis?
What does Isabel say about Luis?

Dice que…

¿Qué dice el compañero de Daniel?
What does Daniel's classmate say about him?

Dice que…

5) María enjoys life to the full. She makes the most of every moment and if she has a problem, she approaches it with a sense of humour.

A friend says:

María me parece muy **feliz.**

happy

¿**Qué dice la amiga de María?**
What does María's friend say about her?

Dice que…

6) Arturo bumps into Pedro, an old university classmate. Although the last time they met was 4 years ago, Arturo is surprised by Pedro's physical deterioration.

Later Arturo says:

Veo a Pedro muy **viejo**

old

¿**Qué dice Arturo de Pedro?**
What does Arturo say about Pedro?

Dice que…

7) Carolina doesn't do anything. She doesn't want to study or work. She does absolutely nothing to help her parents around the house nor in the family business.

Her younger brother can't put up with the situation any longer and exclaims:

¡Qué **vaga,** Carolina!

lazy

8) Luis seems very worried lately. He gets irritated by the smallest thing. His friends think that he is afraid of getting thrown out of the university because he has missed many lectures and done almost no work the whole year.

His mother, who doesn't know about this situation, comments:

Noto a Luis muy **nervioso.**

nervous

¿Qué dice el hermano de Carolina?
What does Carolina's brother say about her?

Dice que…

¿Qué dice la madre de Luis?
What does Luis' mother say about him?

Dice que…

9) Carlos goes out of his way to help other people without expecting anything in return.

A friend says:

¡Qué **generoso,** *Carlos!*

generous

10) Roberto has a very peculiar personality. He won't acknowledge you if you meet him in the street even if you have known him for years.

One of his colleagues makes the following comment:

Roberto me parece muy **raro.**

weird

¿Qué dice el amigo de Carlos?
What does Carlos' friend say about him?

Dice que…

¿Qué dice el compañero de Roberto?
What does Roberto's colleague say about him?

Dice que…

11) Despite being in her 30s, Emilia has fallen in love and lately behaves as a teenager. Her whole world revolves around her new boyfriend. One of her friends complains because Emilia doesn't have time to hang out with her anymore and says:

Veo a Emilia muy **tonta.**

silly

12) David's school grades have become considerably worse. He has gone from producing excellent work to not doing his homework at all. Lately, he has even been misbehaving in class.

His teacher is going to call his parents to say:

Noto a David muy **raro**

weird

¿Qué dice la amiga de Emilia?
What does Emilia's friend say about her?

Dice que…

¿Qué dice el profesor de David?
What does David's teacher say about him?

Dice que…

13) In addition to doing her work extremely well, Alicia attracts attention because of her extraordinary beauty. For example, not long ago in a conversation in the office, Miguel said:

Alicia me parece muy **guapa.**

pretty

¿Qué dice Miguel de Alicia?
What does Miguel say about Alicia?

Dice que…

14) Sofía looks much older than her classmates. She has just turned ten, but at a height 1.60 stands out when compared to her classmates.

When meeting Sofía, the new teacher exclaimed:

¡Qué! **grande,** *esa chica!*

big

¿Qué dice la nueva profesora de Sofía?
What does the new teacher say about Sofía?

Dice que…

15) Adrián got really upset today after hearing he was laid off from his job.

When he returned home, Adrián didn't say anything but the look on his face made his flatmates concerned. One of them said:

Noto a Adrián muy **serio**

serious

16) Alberto has just turned 7 years old and cannot sit still and struggles to pay attention in class.

At a parent-teachers meeting, one of his teachers makes the following comment with resignation:

Alberto me parece muy **nervioso.**

nervous

¿Qué dice el compañero de piso de Adrián?
What does Adrián's flatmate say about him?

Dice que…

¿Qué dice el profesor de Alberto?
What does Alberto's teacher say about him?

Dice que…

17) For the whole year that Alejandro has studied in London, he hasn't seen his niece Rebeca. On his return to Madrid, he makes the following comment about Rebeca's growth.

Veo a Rebeca muy **grande.**

big

---

18) Lola has a non-identical twin sister. Although both sisters eat exactly the same amount of food and do exactly the same amount of exercise, only Lola puts on weight.

When a friend meets Claudia, he makes the following comment to Lola:

¡Qué **delgada,** *tu hermana!*

slim

¿Qué dice Alejandro de su sobrina Rebeca?
What does Alejandro say about his niece Rebeca?

Dice que…

¿Qué dice el amigo de la hermana de Lola?
What does Daniel say about Lola's sister?

Dice que…

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19) Since Eduardo was chosen to compete on a TV quiz show, he can't sleep and spends his nights getting ready for it. He is afraid that his mind will go blank.

Eduardo's father says:

Veo a Eduardo muy **inquieto.**

restless

¿Qué dice el padre de Eduardo?
What does Eduardo's father say about him?

Dice que…

20) Emma doesn't have a good relationship with her grandfather, but since he became very ill, she has changed her attitude and treats him with a lot of affection.

Her mother says with surprise:

Noto a Emma muy **amable.**

kind

¿Qué dice la madre de Emma?
What does Emma's mother say about her?

Dice que…

21) Miguel can't concentrate on anything for very long because he gets bored easily. Because of this, he has had many jobs and struggles to settle down in any one place.

His sister, who knows him well, exclaims:

¡Qué **intranquilo,** *Miguel!*

restless

22) The death of her brother in a car accident affected Lidia greatly. Since then, she hasn't been eating well and as a result, has lost a lot of weight.

Her best friend is concerned and says:

Noto a Lidia muy **delgada.**

slim

¿Qué dice la hermana de Miguel?
What does Miguel's sister say about him?

Dice que…

¿Qué dice el amigo de Lidia?
What does Lidia's friend say about her?

Dice que…

23) The majority of employees were surprised by the appointment of Fernando as director. He is only 28 years old and they think that he lacks the necessary working experience for a position with such responsibility. Because of this, an employee made the following comment:

Fernando me parece muy **joven.**

young

¿Qué dice el empleado de Fernando?
What does the employee say about Fernando?

Dice que…

24) Usually, Alicia helps in her parents' restaurant, but she hasn't been working much for the past few days. In fact, today she has refused to work at all. Her father doesn't know what is going on with her and says:

Veo a Alicia muy **vaga.**

lazy

¿Qué dice el padre de Alicia?
What does Alicia's father say about her?

Dice que…

25) After working abroad for many years, today Paula has accepted a job offer in Madrid. It makes her so excited that she can't stop smiling.

A colleague says:

Noto a Paula muy **feliz.**

happy

26) Martina works as a physiotherapist in a rehabilitation centre. All her patients adore her because she pays them a lot of attention and motivates them during their recovery.

One of her patients makes the following comment:

Martina me parece muy **amable.**

kind

¿Qué dice la compañera de Paula?
What does Paula's colleague say about her?

Dice que…

¿Qué dice el paciente de Martina?
What does the patient say about Martina?

Dice que…

27) Since Félix got a pay rise, he feels more comfortable financially. This afternoon he even invited all of his friends to a restaurant to celebrate his promotion.

Surprised by this unexpected behaviour, a friend makes the following comment:

Veo a Félix muy **generoso.**

generous

¿Qué dice el amigo de Félix?
What does Félix' friend say about him?

Dice que…

28) Ana has just met her boyfriend's father. It has caught her attention that his father barely smiles and seems rather cold.

When Martín asked her what she thought about his father, Ana replied:

Tu padre me parece muy **serio.**

serious

¿Qué dice Ana del padre de su novio?
What does Ana say about her boyfriend's father?

Dice que…

29)   Like the majority of children, Cristina has a lot of energy and can't sit still. She usually makes a lot of noise when she plays. So, her grandmother exclaims:

¡Qué **inquieta,** *Cristina!*

restless

¿Qué dice la abuela de Cristina?
What does Cristina's grandmother say about her?

Dice que…

30) Normally, Lucía doesn't dress up much. But, today, because she has a date with a guy she likes, she is wearing a beautiful dress that looks very good on her.

When a colleague sees her, he says:

Noto a Lucía muy **guapa.**

pretty

¿Qué dice el compañero de trabajo de Lucía?
What does Lucía's colleague say about her?

Dice que…

31) Diana has just rejected an excellent job offer in New York so that she doesn't need to live away from her new boyfriend. Her older brother doesn't understand her decision, particularly because they have just started to date and exclaims:

¡Qué **tonta,** *Diana!*

silly

¿Qué dice el hermano de Diana?
What does Diana's brother say about her?

Dice que…

32) Nobody knows at work that Mónica is expecting twins. She doesn't want to announce it yet but she thinks that everyone has already noticed. Her boss, for example, says that lately she seems in very good spirits.

Veo a Mónica muy **alegre.**

cheerful

¿Qué dice la jefa de Mónica?
What does Mónica's boss say about her?

Dice que…

33) Today Cristian has gone to a reunion with his old schoolmates. He surprises everyone with how well he looks for his age. It seems that he hasn't aged a bit. He has almost no wrinkles.

María makes the following comment:

Veo a Cristian muy **joven.**

young

¿Qué dice María de Cristian?
What does María say about Cristian?

Dice que…

34) Antonio works for an airline in the customer service department. His colleagues admire his patience. No matter what problems he faces, he maintains his composure.

A colleague makes the following comment:

Antonio me parece muy **tranquilo.**

calm

¿Qué dice la compañera de Antonio?
What does Antonio's colleague say about him?

Dice que

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35) Carmen has an engaging personality. Everyone gets on well with her because she has a great sense of humour. She can laugh at anything, including herself.

Her boss comments about her:

¡Qué **alegre,** Carmen!

cheerful

¿Qué dice la jefa de Carmen?
What does Carmen's boss say about her?

Dice que…

36) Since Felipe started listening to heavy metal, his physical appearance has changed. He has long hair and only wears black clothes.

His grandmother complains about his new look, saying:

Noto a Felipe muy **feo.**

ugly

¿Qué dice la abuela de Felipe?
What does Felipe's grandmother say about him?

Dice que…

B.5 Written comprehension task 3 (with dual adjectives)

What would you say in the following situations? Rate the adequacy of the following Spanish sentences according to the context provided. Follow the example.

(0) Since Carolina has had back problems, she has started excercising a lot. She loves her new lifestyle.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Carolina es activa.* *active.*	(-2)	-1	0	+1	+2
2. *Carolina está activa.* *active*	-2	-1	0	+1	(+2)

(1) Arturo's colleagues complain about him a lot. They say he does not do anything, but he gets paid nevertheless.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Arturo es vago.* *lazy.*	-2	-1	0	+1	+2
2. *Arturo está vago.* *lazy.*	-2	-1	0	+1	+2

(2) Today the Maths teacher didn't let Elena do the exam because she arrived late and asked her to go to the Headmaster's office. Elena seems really concerned.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Elena es seria.* *serious.*	-2	-1	0	+1	+2
2. *Elena está seria.* *serious.*	-2	-1	0	+1	+2

(3) Lidia knows that she has a different kind of beauty that not everyone likes.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Lidia es fea.* *ugly.*	-2	-1	0	+1	+2
2. *Lidia está fea.* *ugly.*	-2	-1	0	+1	+2

(4) Since José had a heated argument with his girlfriend Sara, he doesn't understand what is going on with her. Lately, she hasn't answered the phone and hasn't wanted to hang out with him.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Sara es rara.* *weird.*	-2	-1	0	+1	+2
2. *Sara está rara.* *weird.*	-2	-1	0	+1	+2

(5) All his students love Carlos because he treats them with respect and because he thinks of their needs.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Carlos es amable. *kind.*	-2	-1	0	+1	+2
2. Carlos está amable. *kind.*	-2	-1	0	+1	+2

(6) Today Julia has a job interview for an extremely important position. She is so concerned that she cannot stop biting her nails.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Julia es nerviosa. *nervous.*	-2	-1	0	+1	+2
2. Julia está nerviosa. *nervous.*	-2	-1	0	+1	+2

(7) Diana has not seen her friend's son since his birth. Six months have passed and she is surprised at how much he has grown.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Alejandro es grande. *big.*	-2	-1	0	+1	+2
2. Alejandro está grande. *big.*	-2	-1	0	+1	+2

(8) David has a fullfilling life and does not dwell on the negative experiences in life.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. David es feliz. *happy.*	-2	-1	0	+1	+2
2. David está feliz. *happy.*	-2	-1	0	+1	+2

(9) Lately, Isabel appears more relaxed to me. It seems that she feels more comfortable in her new job.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. Isabel es tranquila. *calm.*	-2	-1	0	+1	+2
2. Isabel está tranquila. *calm.*	-2	-1	0	+1	+2

(10) Iván's teacher says that he fidgets a lot and struggles to concentrate in class.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Iván es inquieto.* *restless.*	-2	-1	0	+1	+2
2. *Iván está inquieto.* *restless.*	-2	-1	0	+1	+2

(11) Claudia likes helping and sharing what she has without expecting anything in return.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Claudia es generosa.* *generous.*	-2	-1	0	+1	+2
2. *Claudia está generosa.* *generous.*	-2	-1	0	+1	+2

(12) I have a very studious son, but today he does not feel like doing his homework at all. He only wants to play with his iPad.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Nicolás es vago.* *lazy.*	-2	-1	0	+1	+2
2. *Nicolás está vago.* *lazy.*	-2	-1	0	+1	+2

(13) For two exceptional tall people as Carolina and her husband, it doesn't surprise them that their newborn has just been registered in the Guiness book of world records for his huge size.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Adrián es grande.* *big.*	-2	-1	0	+1	+2
2. *Adrián está grande.* *big.*	-2	-1	0	+1	+2

(14) Today Eduardo jumped for joy when he has found out that his boss has promoted him.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Eduardo es feliz.* *happy.*	-2	-1	0	+1	+2
2. *Eduardo está feliz.* *happy.*	-2	-1	0	+1	+2

(15) José inherited his mother's beauty. He has green eyes, black hair and measures 1.80 cm in height.					
	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *José es guapo.* *handsome.*	-2	-1	0	+1	+2
2. *José está guapo.* *handsome.*	-2	-1	0	+1	+2

(16) My mother's name is Rosa and she does not look her age. People can't believe she has just turned seventy-five years old.					
	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Rosa es joven.* *young.*	-2	-1	0	+1	+2
2. *Rosa está joven.* *young.*	-2	-1	0	+1	+2

(17) There is no situation that can agitate Lola. When there are disagreements at work, she favours conciliation and a good working environment.					
	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Lola es tranquila.* *calm.*	-2	-1	0	+1	+2
2. *Lola está tranquila.* *calm.*	-2	-1	0	+1	+2

(18) In her last catwalk show, the make-up and the clothes that Emilia wore stopped you seeing her extraordinary beauty.					
	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Emilia es fea.* *ugly.*	-2	-1	0	+1	+2
2. *Emilia está fea.* *ugly.*	-2	-1	0	+1	+2

(19) The students respect Diana because in her classes she maintains discipline with a strict but fair approach.					
	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Diana es seria.* *serious.*	-2	-1	0	+1	+2
2. *Diana está seria.* *serious.*	-2	-1	0	+1	+2

(20) Lara wants to have a tattoo but her parents do not want her to because she is only nine years old.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Lara es joven.** *young.*	-2	-1	0	+1	+2
2. **Lara está joven.** *young.*	-2	-1	0	+1	+2

(21) Since Alicia got a pay rise, she does not let you pay for anything.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Alicia es generosa.** *generous.*	-2	-1	0	+1	+2
2. **Alicia está generosa.** *generous.*	-2	-1	0	+1	+2

(22) My neighbour Cristina has just turned 90 years old and has enviable health.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Cristina es vieja.** *old.*	-2	-1	0	+1	+2
2. **Cristina está vieja.** *old.*	-2	-1	0	+1	+2

(23) Since Daniel has had a personal trainer, he has lost a lot of weight and does not look the same.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Daniel es delgado.** *slim.*	-2	-1	0	+1	+2
2. **Daniel está delgado.** *slim.*	-2	-1	0	+1	+2

(24) Among Julia's traits you can't find a trace of calmness.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Julia es intranquila.** *restless.*	-2	-1	0	+1	+2
2. **Julia está intranquila.** *restless.*	-2	-1	0	+1	+2

(25) Raul lacks the intelligence to solve the problems of everyday life. He makes a mountain out of a molehill.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Raúl es tonto.* *silly.*	-2	-1	0	+1	+2
2. *Raúl está tonto.* *silly.*	-2	-1	0	+1	+2

(26) Cristián's sister thinks that he has a girlfriend. Lately, he seems very pleased with himself.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Cristián es alegre.* *cheerful.*	-2	-1	0	+1	+2
2. *Cristián está alegre.* *cheerful.*	-2	-1	0	+1	+2

(27) David has inherited his father's physique. He does not need to go on a diet. He eats all the time but amazingly does not put on weight.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *David es delgado.* *slim.*	-2	-1	0	+1	+2
2. *David está delgado.* *slim.*	-2	-1	0	+1	+2

(28) Only Carmen knows that she did not commit the murder but the evidence shows the opposite. She fears that the judge wouldn't believe her and because of this, she keeps on trembling.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Carmen es intranquila.* *restless.*	-2	-1	0	+1	+2
2. *Carmen está intranquila.* *restless.*	-2	-1	0	+1	+2

(29) Due to a rare skin disease, Laura looks older than her actual age.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Laura es vieja.* *old.*	-2	-1	0	+1	+2
2. *Laura está vieja.* *old.*	-2	-1	0	+1	+2

(30) Sofía has such a fragile and unstable character that she easily becomes agitated.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Sofía es nerviosa.* *nervous.*	-2	-1	0	+1	+2
2. *Sofía está nerviosa.* *nervous.*	-2	-1	0	+1	+2

(31) Everyone gets on well with Juan because he has such a positive, kind character.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Juan es alegre.* *cheerful.*	-2	-1	0	+1	+2
2. *Juan está alegre.* *cheerful .*	-2	-1	0	+1	+2

(32) The security guard where Luis works answers rudely if you ask him something. He has a difficult character but since he was told that if he carried on this way, he would be dismissed, he seems like another person.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Diego es amable.* *kind.*	-2	-1	0	+1	+2
2. *Diego está amable.* *kind.*	-2	-1	0	+1	+2

(33) Lately, Martín has created many scandals. Nobody understands what is going on with him.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Martín es tonto.* *silly.*	-2	-1	0	+1	+2
2. *Martín está tonto.* *silly.*	-2	-1	0	+1	+2

(34) The outfit that Fernando is wearing today for his graduation suits him.					
	VERY BAD	**BAD**	**NEUTRAL**	**GOOD**	**VERY GOOD**
1. *Fernando es guapo.* *handsome.*	-2	-1	0	+1	+2
2. *Fernando está guapo.* *handsome.*	-2	-1	0	+1	+2

(35) Ana attracts attention wherever she goes. She has an extravagant way of dressing and also an unusual personality.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Ana es rara.* *weird.*	-2	-1	0	+1	+2
2. *Ana está rara.* *weird.*	-2	-1	0	+1	+2

(36) Since the robbery in Antonio's house, he can't get to sleep at night. Any sound scares him.

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. *Antonio es inquieto.* *restless.*	-2	-1	0	+1	+2
2. *Antonio está inquieto.* *restless.*	-2	-1	0	+1	+2

B.6 Written comprehension task 4 (with IL (only-*ser*) adjectives and SL (only-*estar* adjectives))

Drawing on your knowledge of Spanish, rate how good or bad the following Spanish sentences sound for you. Follow the example:

Example:	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
Martín está analfabeto. illiterate	(-2)	-1	0	+1	+2

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
1. **Alberto es extranjero.** foreign	-2	-1	0	+1	+2
2. **Ana está bilingüe.** bilingual	-2	-1	0	+1	+2
3. **Alejandro está furioso.** furious	-2	-1	0	+1	+2
4. **Cristian está famoso.** famous	-2	-1	0	+1	+2
5. **Rosa es borracha.** drunk	-2	-1	0	+1	+2
6. **Claudia es desnuda.** naked	-2	-1	0	+1	+2
7. **Isabel es culpable.** guilty	-2	-1	0	+1	+2
8. **Iván está alérgico.** allergic	-2	-1	0	+1	+2
9. **Sara está extranjera.** foreign	-2	-1	0	+1	+2
10. **Luisa está enferma.** sick	-2	-1	0	+1	+2
11. **Diana es vegetariana.** vegetarian	-2	-1	0	+1	+2
12. **Eva está sola.** alone	-2	-1	0	+1	+2

	VERY BAD	BAD	NEUTRAL	GOOD	VERY GOOD
13. **José es bilingüe.** bilingual	-2	-1	0	+1	+2
14. **Paula está contenta.** happy	-2	-1	0	+1	+2
15. **Juan está culpable.** guilty	-2	-1	0	+1	+2
16. **Antonio es enfermo.** sick	-2	-1	0	+1	+2
17. **Luis está borracho.** drunk	-2	-1	0	+1	+2
18. **María es alérgica.** allergic	-2	-1	0	+1	+2
19. **Laura es furiosa.** furious	-2	-1	0	+1	+2
20. **Ángel está desnudo.** naked	-2	-1	0	+1	+2
21. **Miguel es contento.** happy	-2	-1	0	+1	+2
22. **Alicia es famosa.** famous	-2	-1	0	+1	+2
23. **Pedro está vegetariano.** vegetarian	-2	-1	0	+1	+2
24. **David es solo.** alone	-2	-1	0	+1	+2

APPENDIX C

Results from the written comprehension elicitation tasks

1. Results from the level of acceptance of *ser* with IL (only-*ser*) adjectives (e.g. *famoso* 'famous').
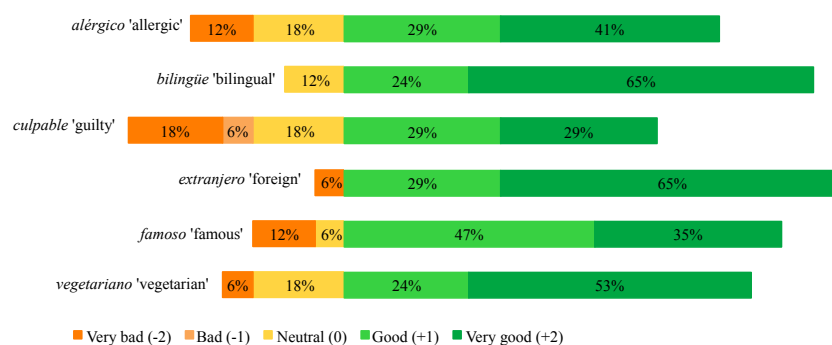
Figure 1. Mean percentages of *ser* with IL (only-*ser*) adjectives by beginners (A1-A2)
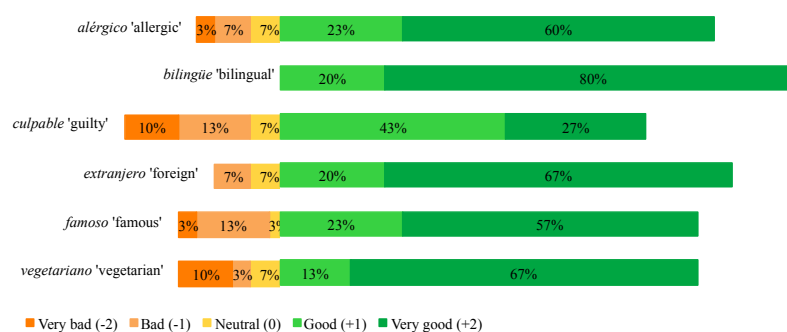
Figure 2. Mean percentages of *ser* IL (only-*ser*) adjectives by intermediate learners (B1-B2)
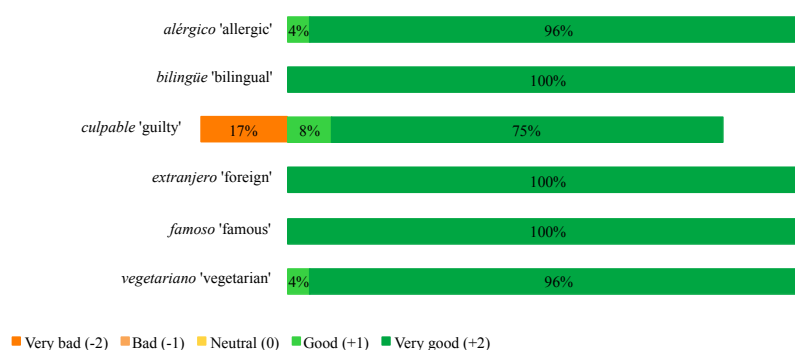
Figure 3. Mean percentages of *ser* IL (only-*ser*) adjectives by advanced learners (C1)

2. Results from the level of rejection of *ser* with SL(only-*estar*) adjectives (e.g. *solo* 'alone').
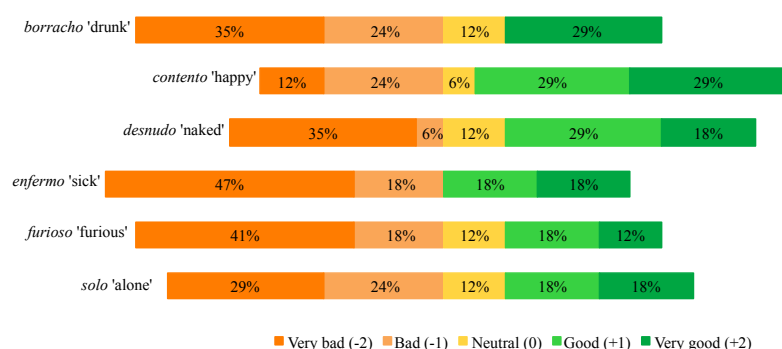
Figure 4. Mean percentages of *ser* with SL (only-*estar*) adjectives by beginners (A1-A2)
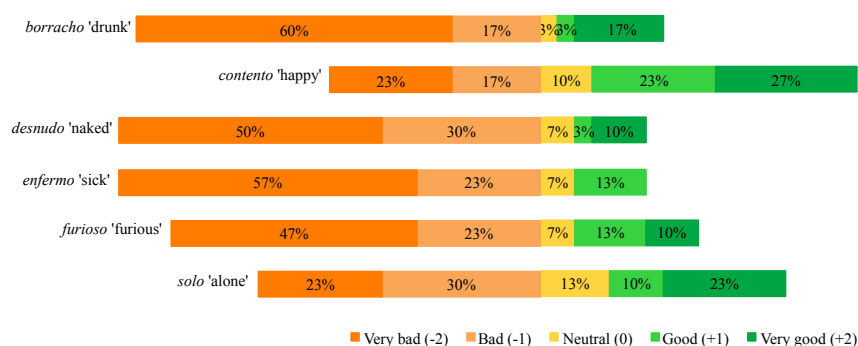
Figure 5. Mean percentages of *ser* with SL (only-*estar*) adjectives by intermediate learners (B1-B2)

Figure 6. Mean percentages of *ser* with SL (only-*estar*) adjectives by advanced learners (C1)

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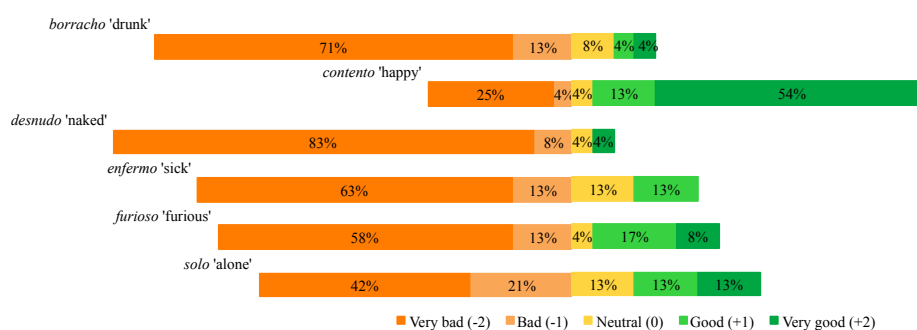
3. Results from the level of acceptance of *estar* with SL (only-*estar*) adjectives (e.g. solo 'alone').
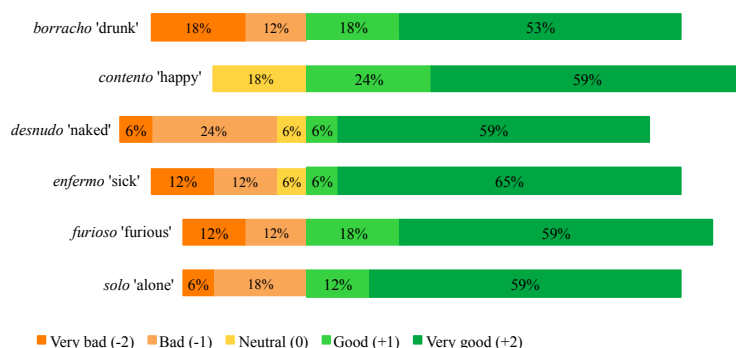
Figure 7. Mean percentages of *estar* with SL (only-*estar*) adjectives by beginners (A1-A2)
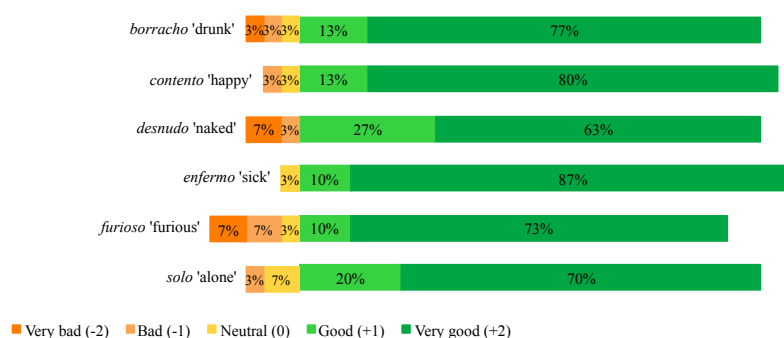
Figure 8. Mean percentages of *estar* with SL (only-*estar*) adjectives by intermediate learners (B1-B2)
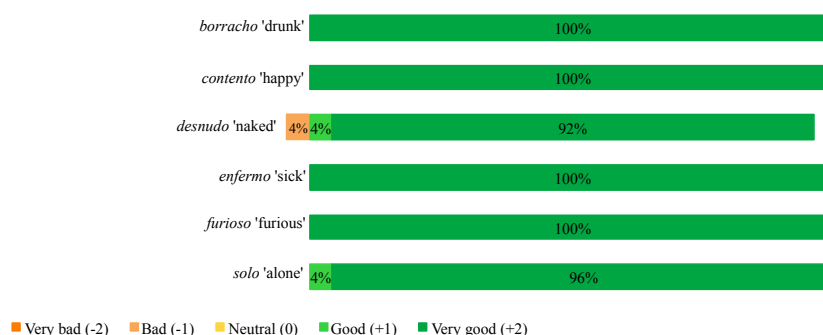
Figure 9. Mean percentages of *estar* with SL (only-*estar*) adjectives by advanced learners (C1)

4. Results from the level of rejection of *estar* with IL (only-*ser)* adjectives (e.g. *famoso* 'famous').
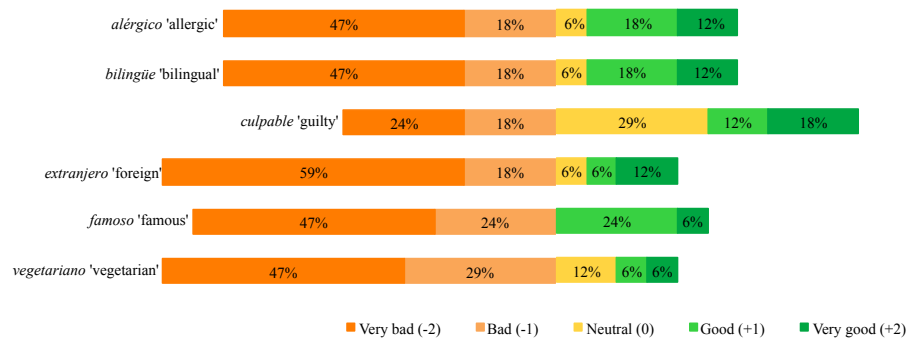
Figure 10. Mean percentages of *estar* with IL (only-*ser)* adjectives by beginners (A1-A2)
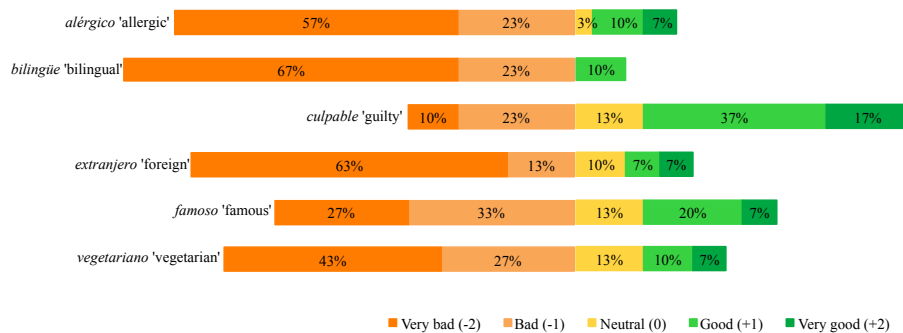
Figure 11. Mean percentages of *estar* with IL (only-*ser)* adjectives by intermediate learners (B1-B2)
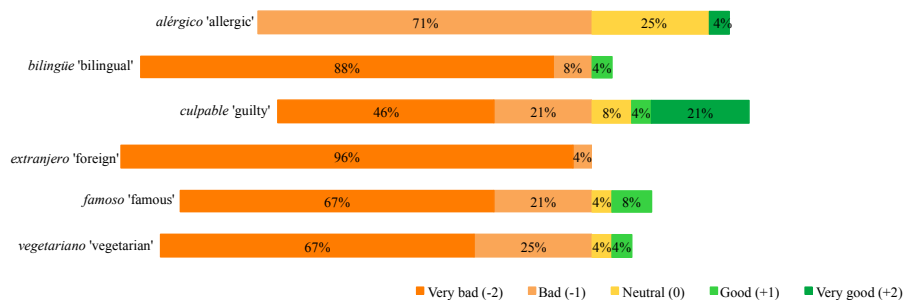
Figure 12. Mean percentages of *estar* with IL (only-*ser)* adjectives by advanced learners (C1)

5. Results from the level of acceptance of *ser* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in IL contexts where the copula expected is *ser*.
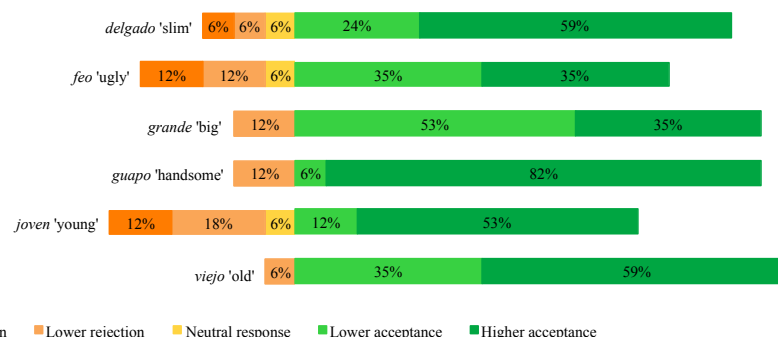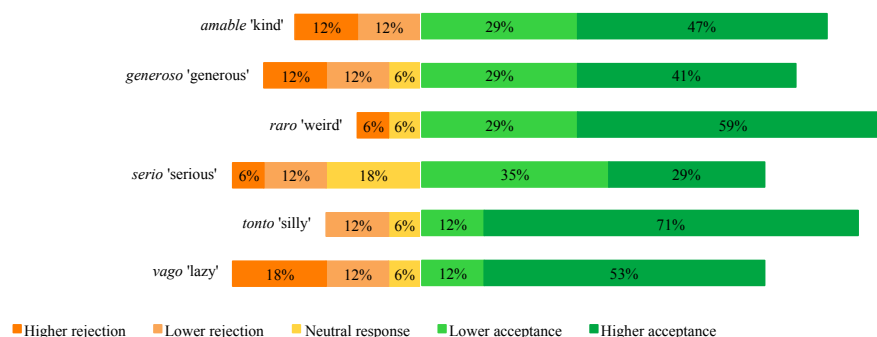

Figure 13. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by beginners (A1-A2)
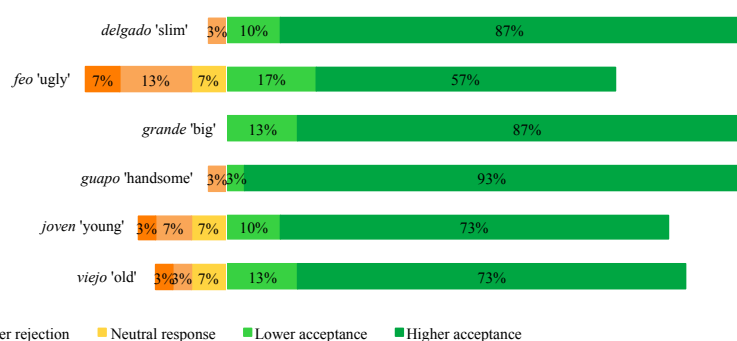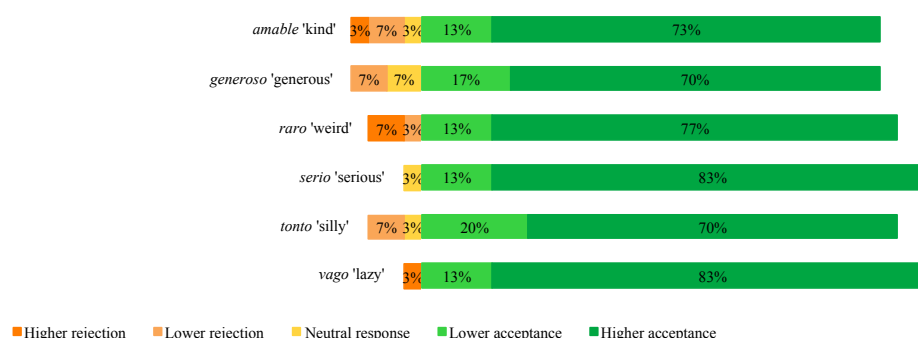

Figure 14. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by intermediate learners (B1-B2)
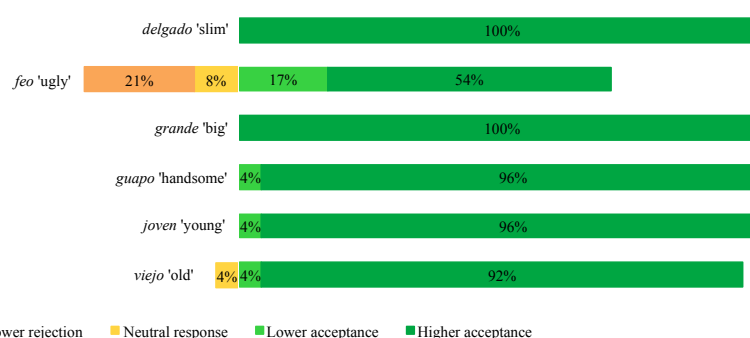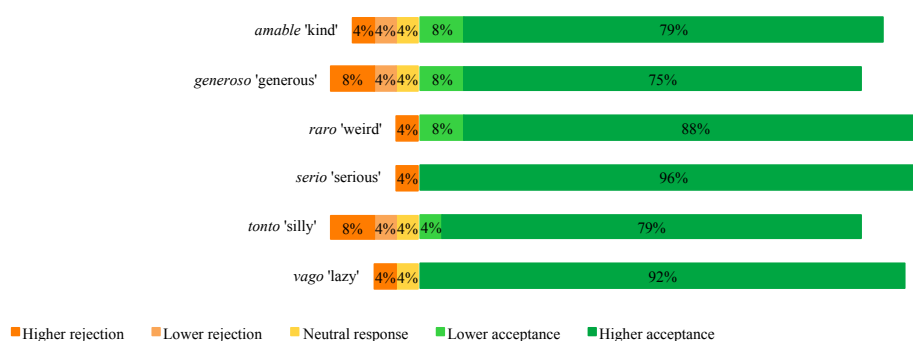

Figure 15. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by advanced learners (C1-C2)
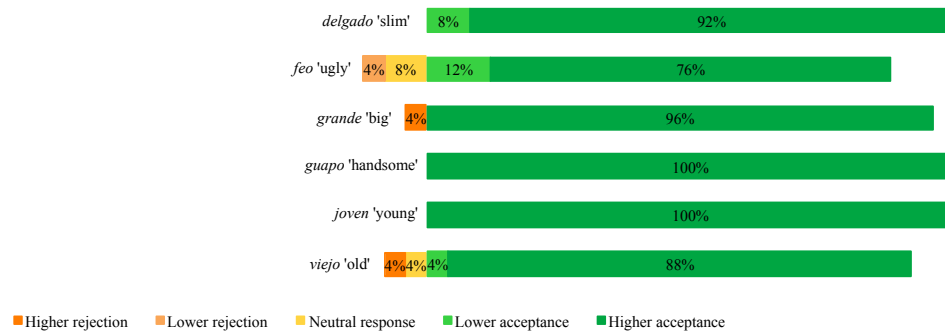
Figure 16. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by natives

6. Results from the level of rejection of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') in IL contexts where the copula expected is *ser*.
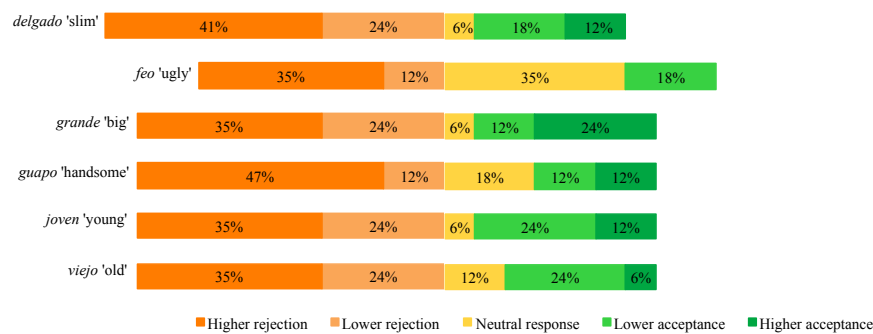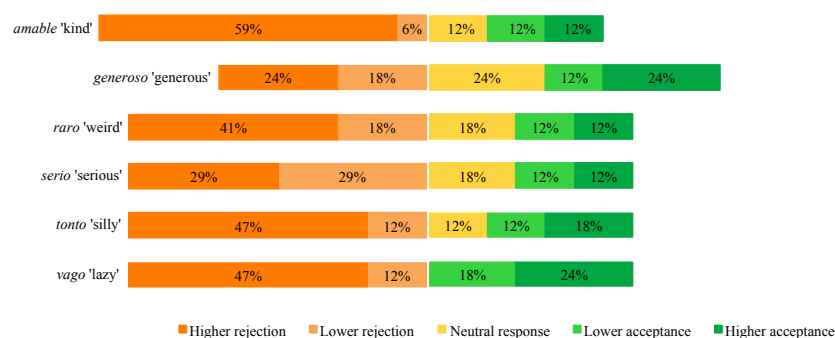

Figure 17. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by beginners (A1-A2)
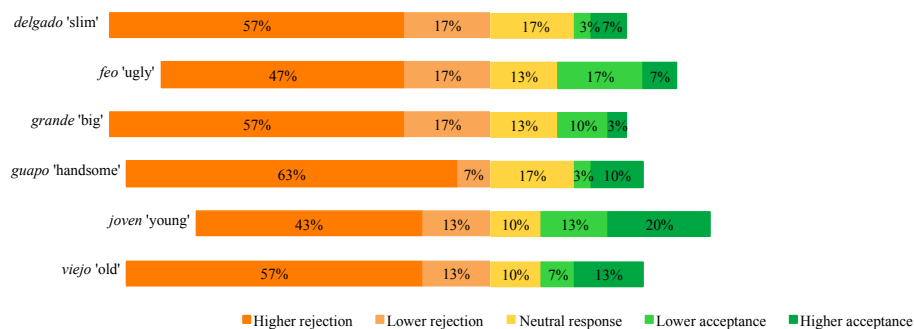
Figure 18. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by intermediate learners (B1-B2)
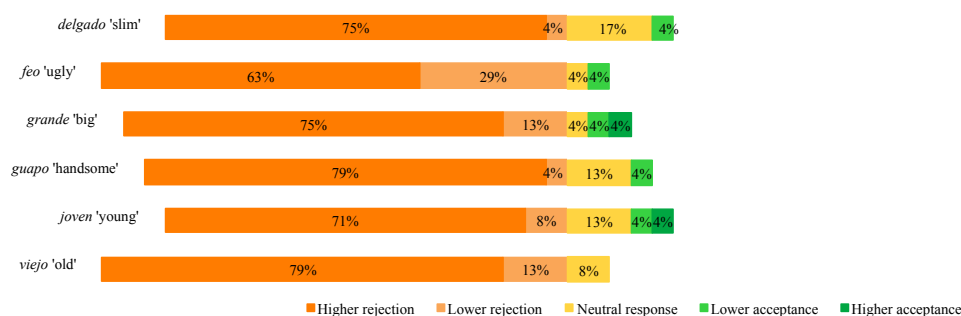
Figure 19. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by advanced learners (C1-C2)
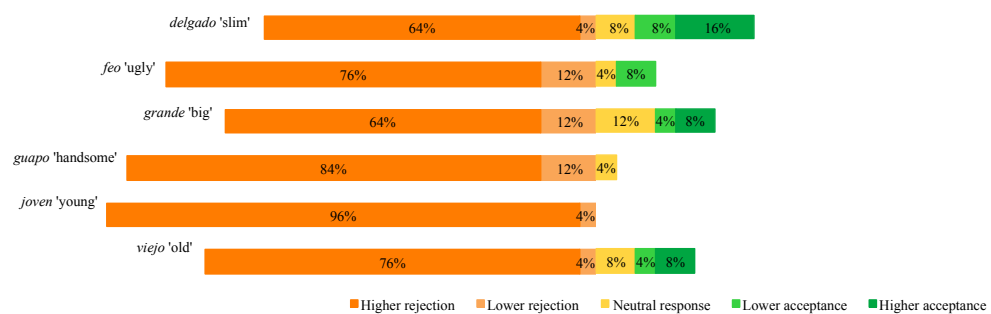
Figure 20. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by natives

7. Results from the level of acceptance of *estar* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts where the copula expected is *ser*.
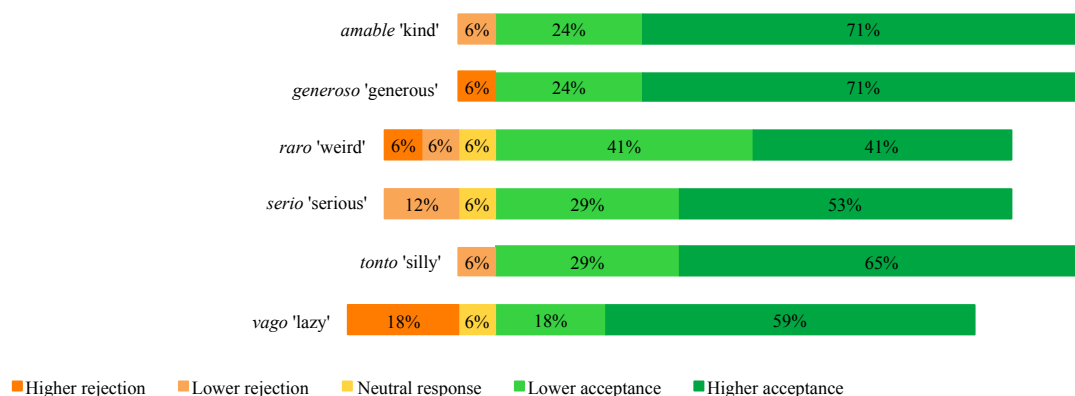
Figure 21. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by beginners (A1-A2)
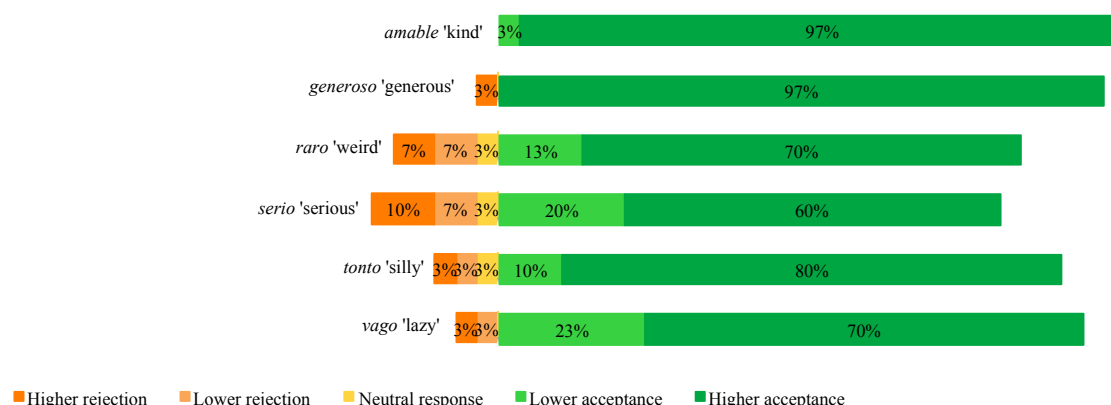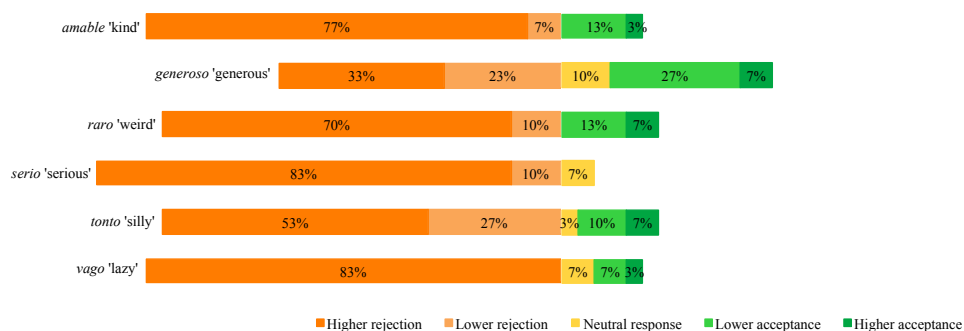

Figure 22. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by intermediate learners (B1-B2)
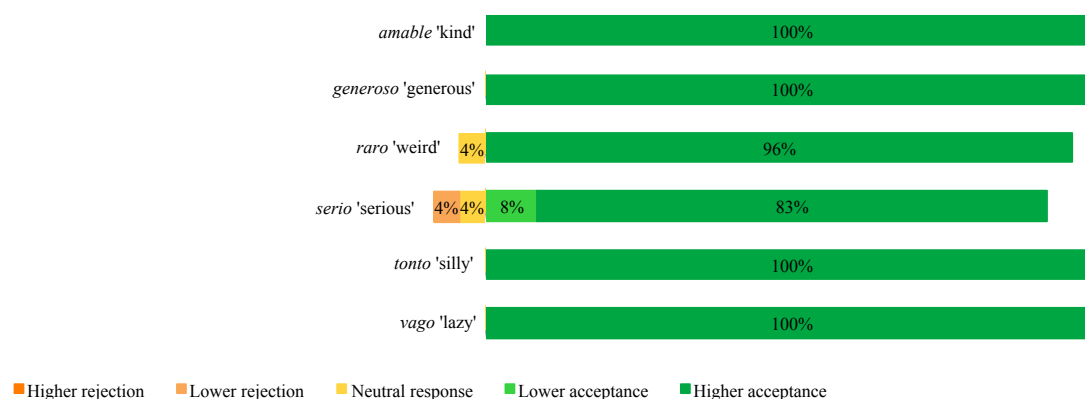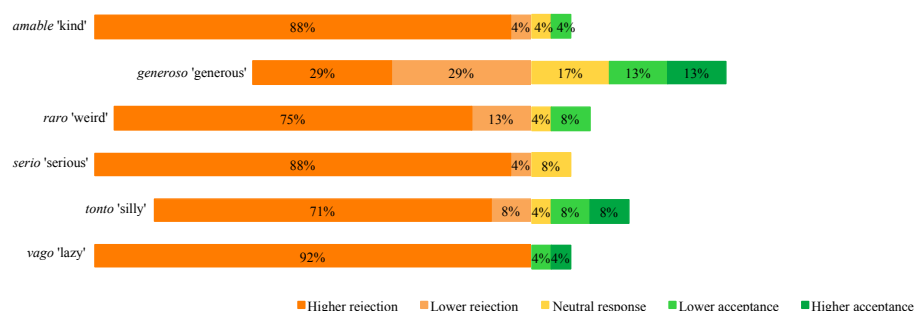

Figure 23. Mean percentages of *ser* with dependent-stage adjectives (e.g. *amable* 'kind') by advanced learners (C1)
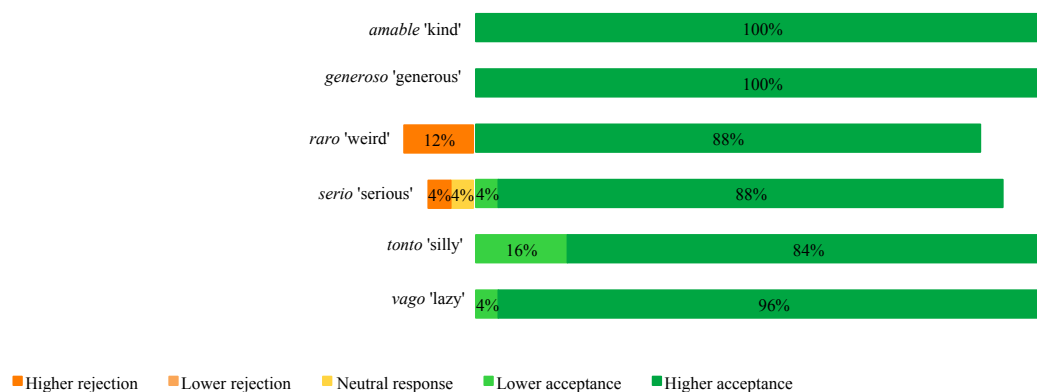
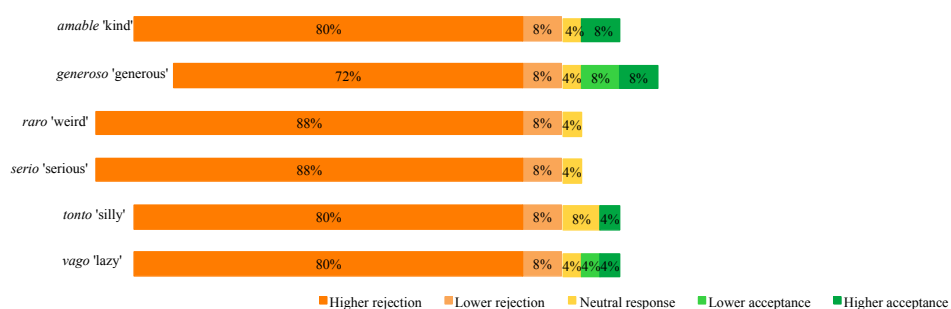247

Figure 24. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by natives

8. Results from the level of rejection of *estar* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in IL contexts where the copula expected is *ser*.
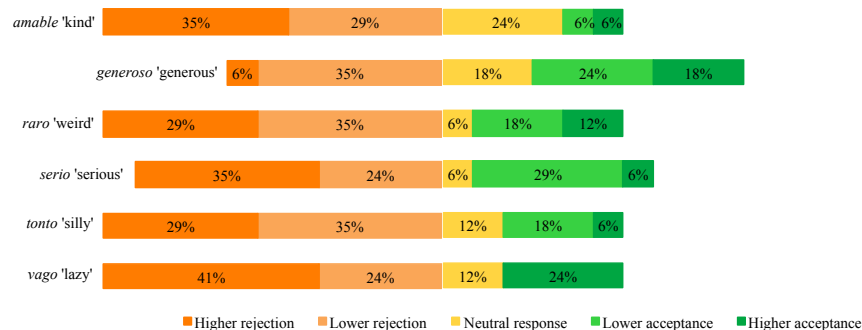
Figure 25. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by beginners (A1-A2)
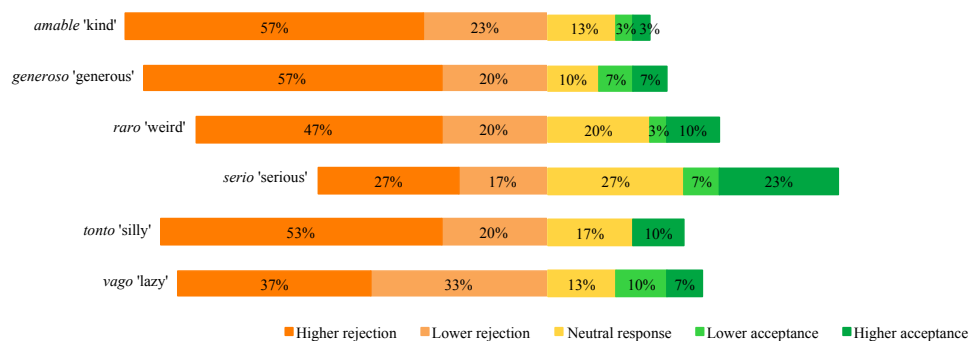
Figure 26. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by intermediate learners (B1-B2)
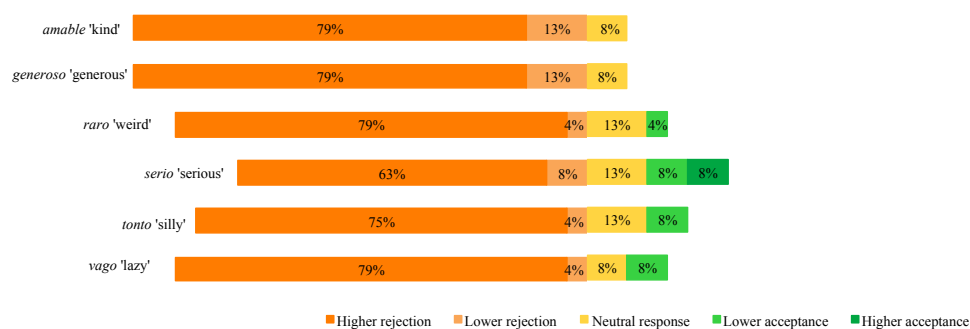
Figure 27. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by advanced learners (B1-B2)
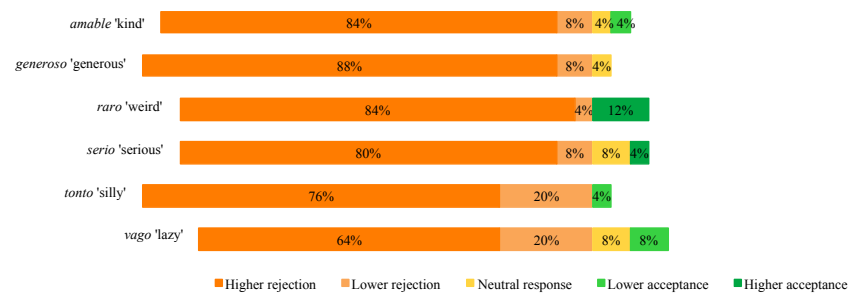
Figure 28. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by natives

9. Results from the level of acceptance of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL contexts where the copula expected is *ser*.
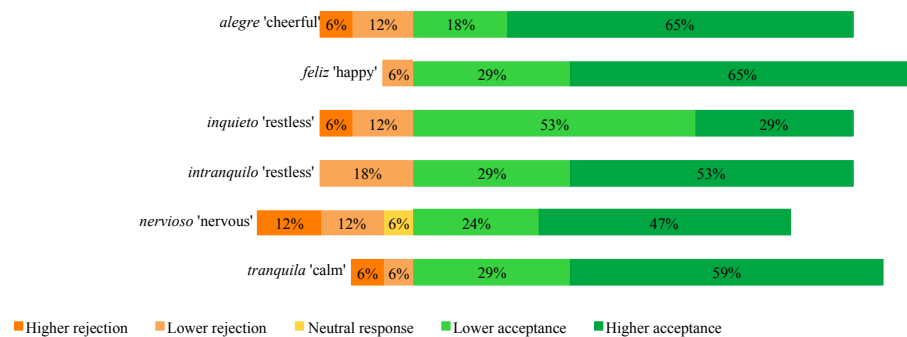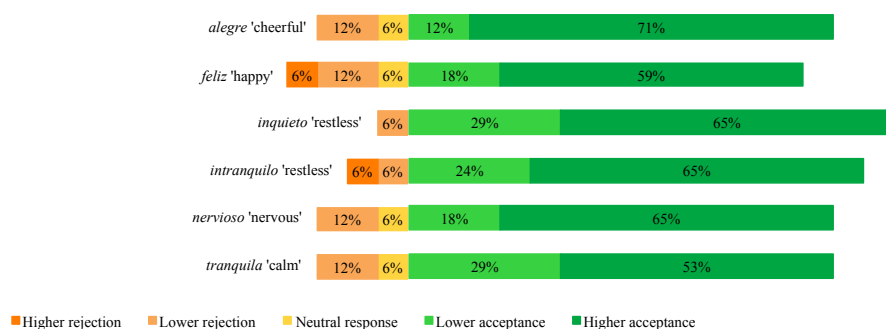

Figure 29. Mean percentages of *ser* with dual self-standing stage (e.g. *nervioso* 'nervous') (e.g. *nervioso* 'nervous') by beginners (A1-A2)
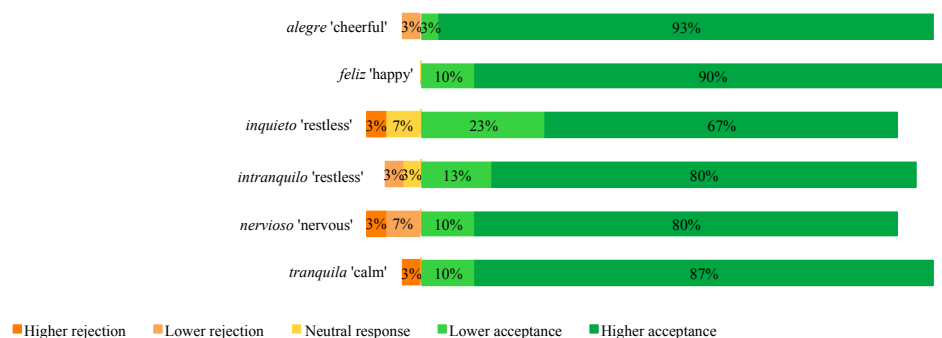
Figure 30. Mean percentages of *ser* with dual self-standing stage (e.g. *nervioso* 'nervous') by intermediate learners (B1-B2)
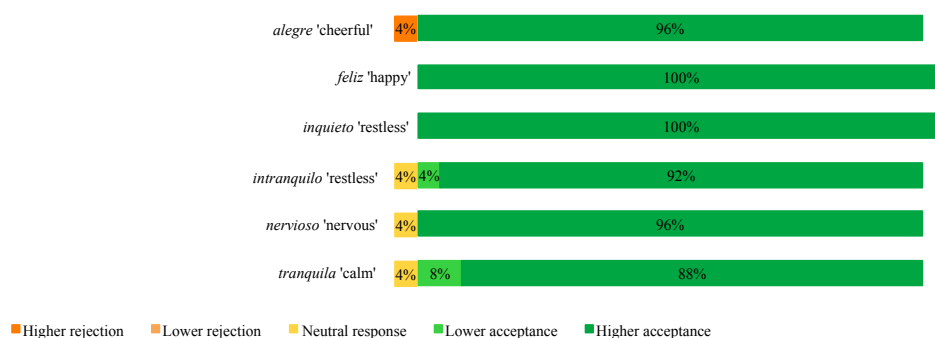

Figure 31. Mean percentages of *ser* with dual self-standing stage (e.g. *nervioso* 'nervous') by advanced learners (C1-C2)

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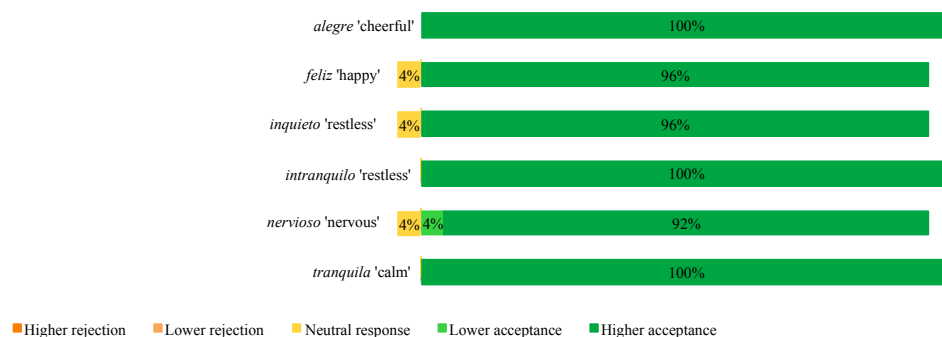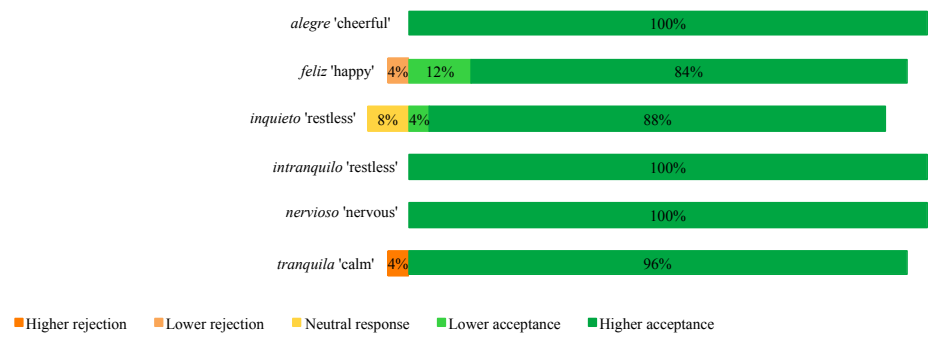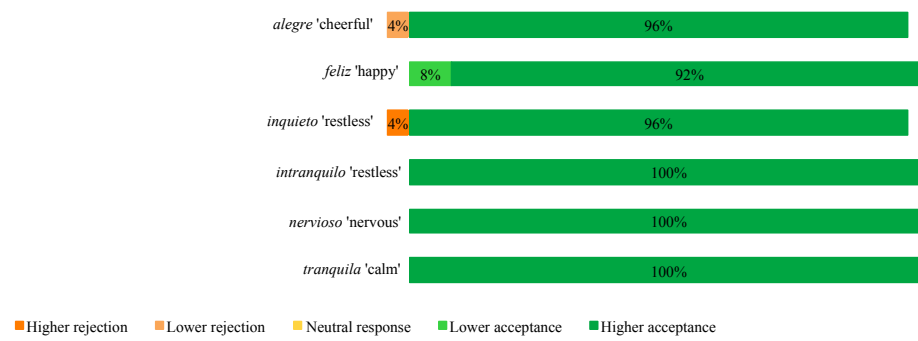
Figure 32. Mean percentages of *ser* with dual self-standing stage (e.g. *nervioso* 'nervous') by natives

10. Results from the level of rejection of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in IL contexts where the copula expected is *ser*.
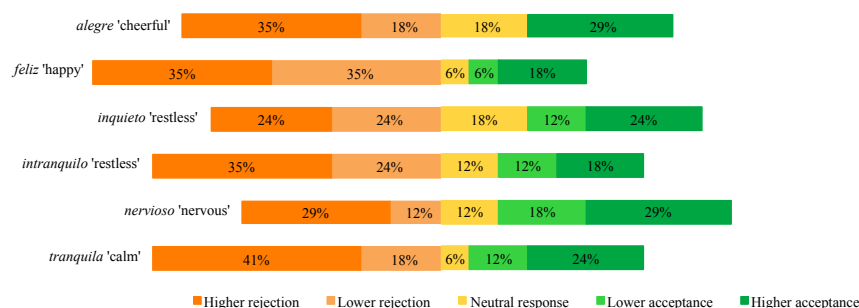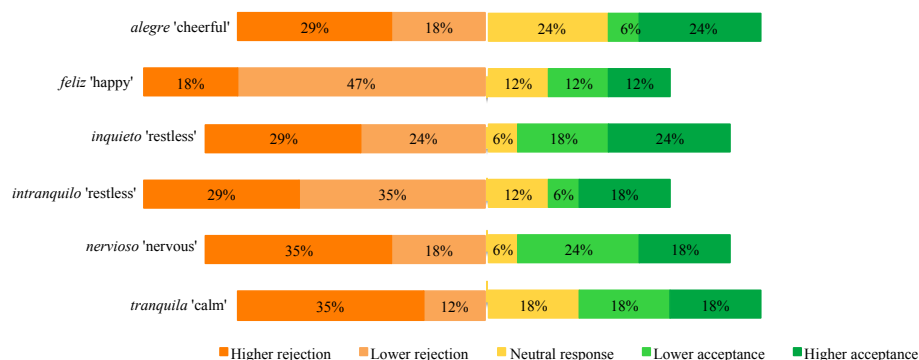

Figure 33. Mean percentages of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by beginners (A1-A2)
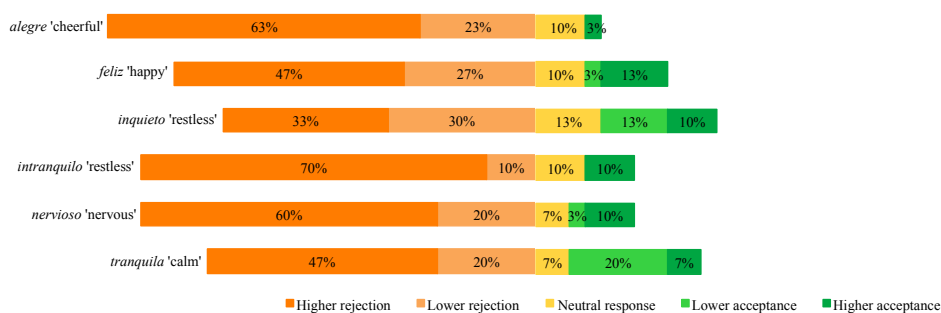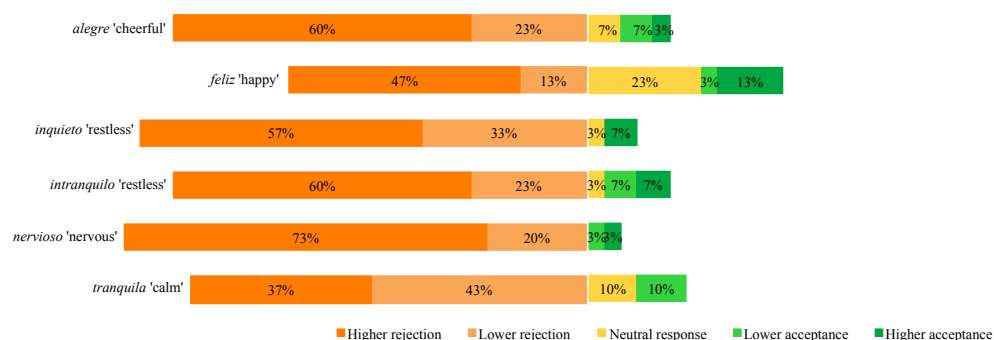

Figure 34. Mean percentages of *ser* with self-standing stage adjectives (e.g. *nervioso* 'nervous') by intermediate learners (B1-B2)
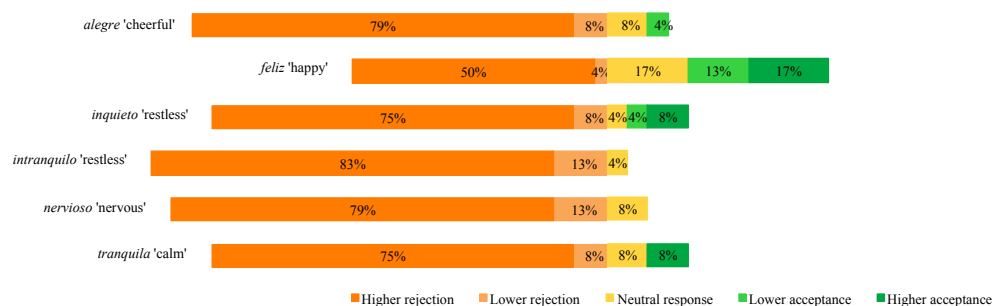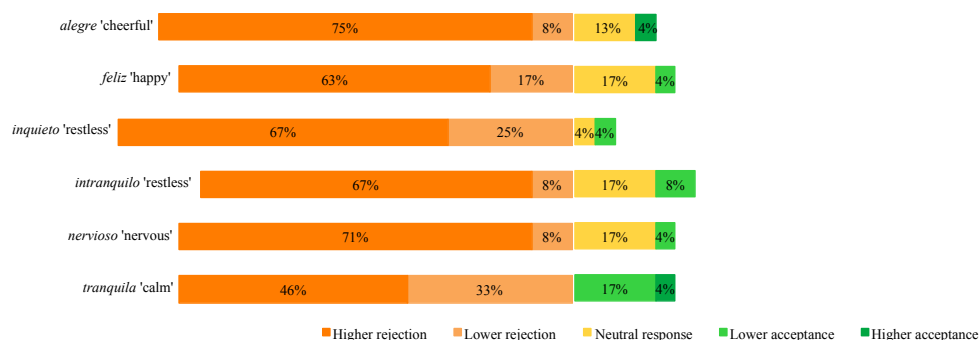

Figure 35. Mean percentages of *ser* with self-standing stage adjectives (e.g. *nervioso* 'nervous') by advanced learners (C1)
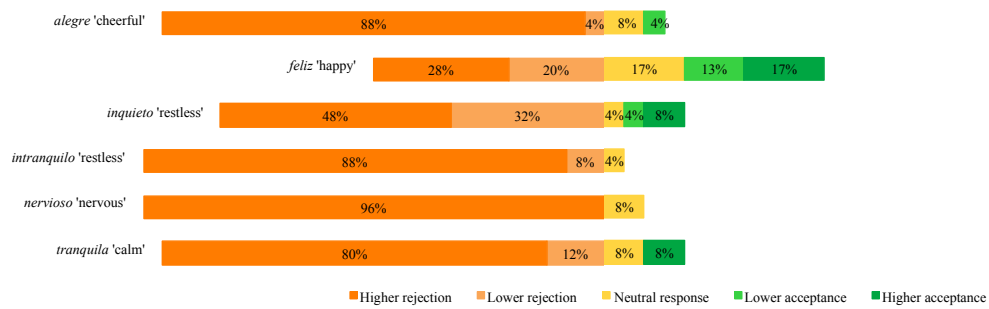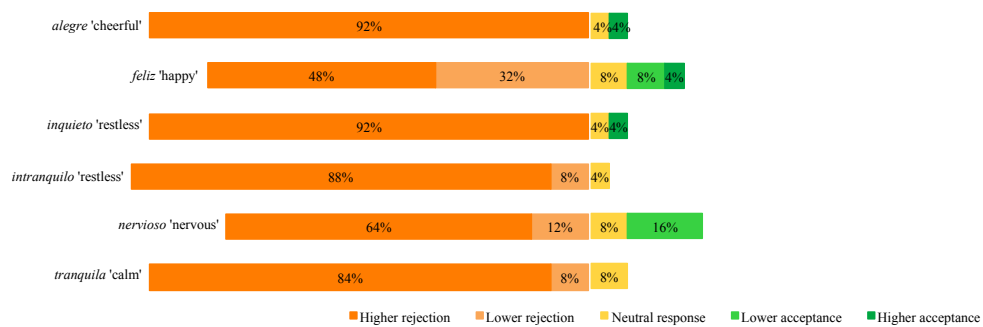
Figure 36. Mean percentages of *ser* with self-standing stage adjectives (e.g. *nervioso* 'nervous') by natives

11. Results from the level of acceptance of *estar* with dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old') in SL contexts where the copula expected is *estar*.
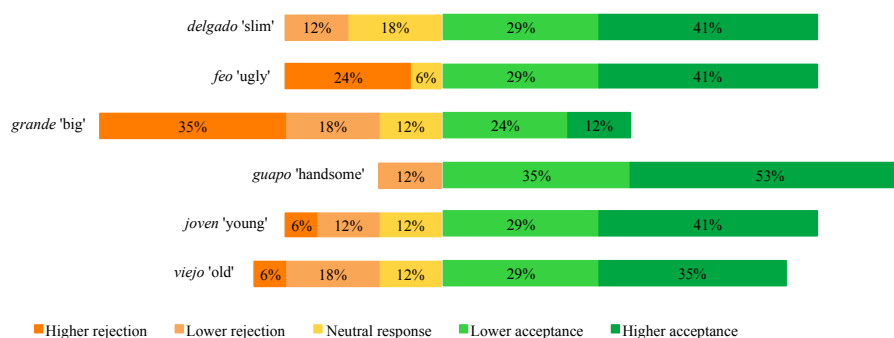
Figure 37. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by beginners (A1-A2)
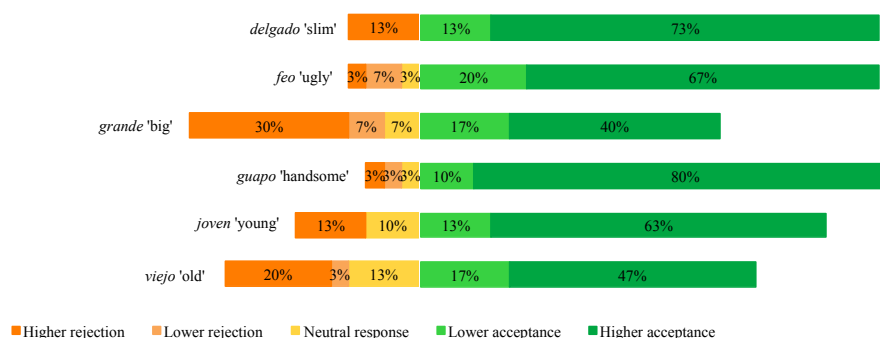
Figure 38. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by intermediate learners (B1-B2)
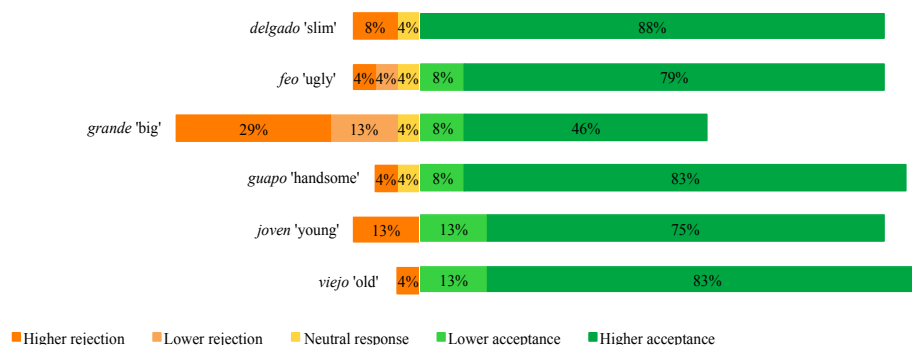
Figure 39. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by advanced learners (C1)

255
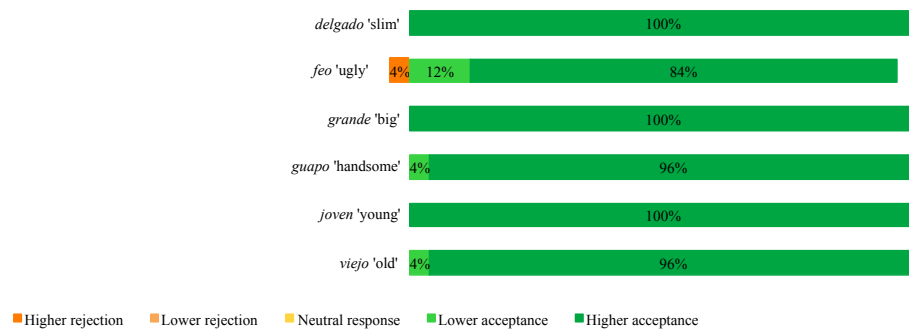
Figure 40. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *viejo* 'old') by natives

12. Results from the level of rejection of *ser* with dual dependent-stage adjectives of physical appearance (e.g. viejo 'old') in SL contexts where the copula expected is *estar.*
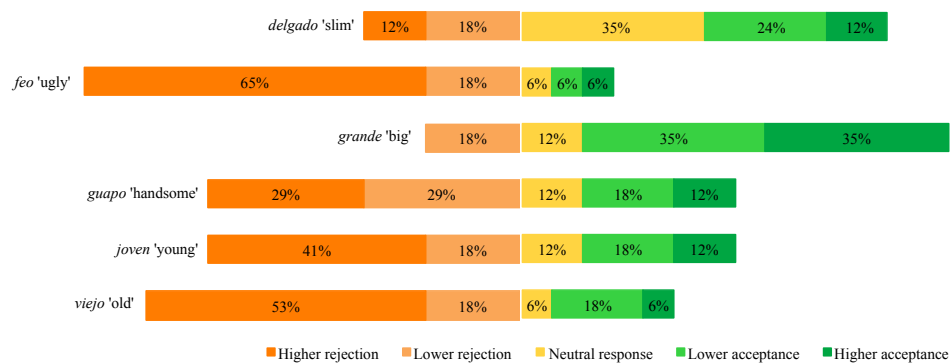
Figure 41. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by beginners (A1-A2)
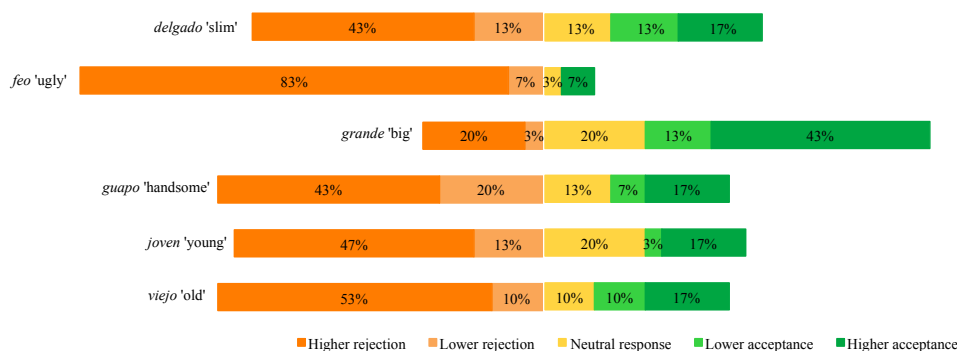
Figure 42. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by intermediate learners (B1-B2)
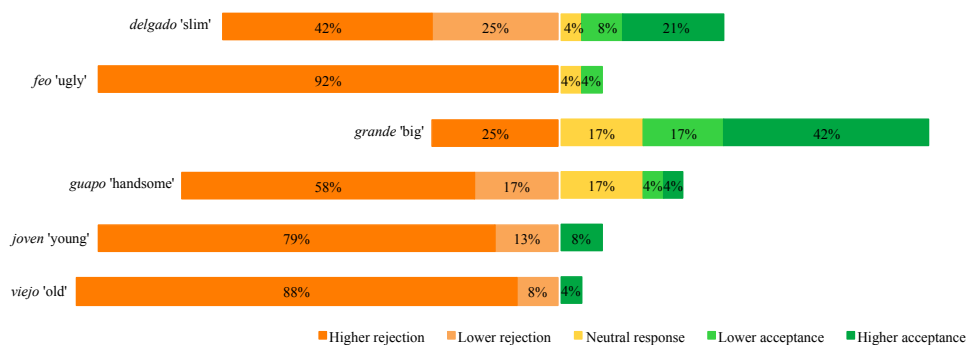
Figure 43. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old')by advanced learners (C1)

delgado 'slim'	92%	8%	
feo 'ugly'	88%	12%	
grande 'big'	92%	4% 4%	
guapo 'handsome'	80%	20%	
joven 'young'	92%	4% 4%	
viejo 'old'	80%	12%	4% 4%

■ Higher rejection ■ Lower rejection ■ Neutral response ■ Lower acceptance ■ Higher acceptance
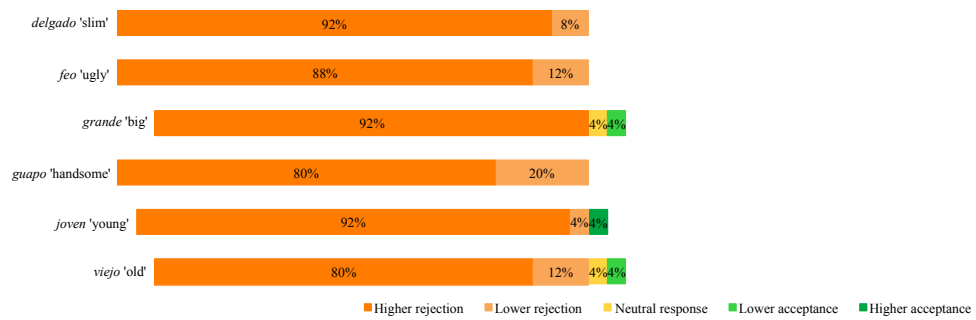
Figure 44. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *viejo* 'old') by natives

13. Results from the level of acceptance of *estar* with dual dependent-stage adjectives of disposition (e.g. *amable* 'kind') in SL contexts where the copula expected is *estar*.

Figure 45. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by beginners (A1-A2)

Figure 46. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by intermediate learners (B1-B2)

Figure 47. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by advanced learners (C1)

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Figure 48. Mean percentages of *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') by natives

14. Results from the level of rejection of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') in SL contexts where the copula expected is *estar*.

Figure 49. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by beginners (A1-A2)

Figure 50. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by intermediate learners (B1-B2)

Figure 51. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by advanced learners (C1)

Figure 52. Mean percentages of *ser* with dual dependent-stage adjectives (e.g. *amable* 'kind') by natives

15. Results from the level of acceptance of *estar* with dual self-standing stage adjectives (e.g. *nervous* 'nervous') in SL contexts where the copula expected is *estar*.

Figure 53. Mean percentages of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by beginners (A1-A2)
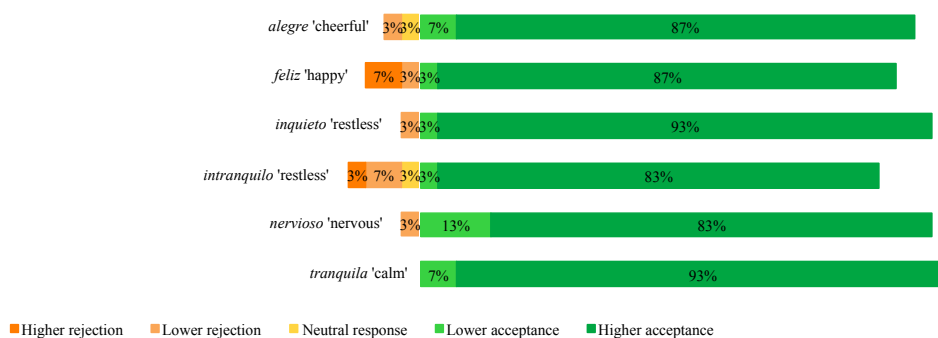
Figure 54. Mean percentages of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by intermediate learners (B1-B2)

Figure 55. Mean percentages of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by advanced learners (C1)

Figure 56. Mean percentages of *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by natives

16. Results from the level of rejection of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts where the copula expected is *estar*.

Figure 57. Mean percentages of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by beginners (A1-A2)

Figure 58. Mean percentages of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by intermediate learners (B1-B2)

Figure 59. Mean percentages of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by advanced learners (C1)

Figure 60. Mean percentages of *ser* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') by natives

APPENDIX D

Oral production results
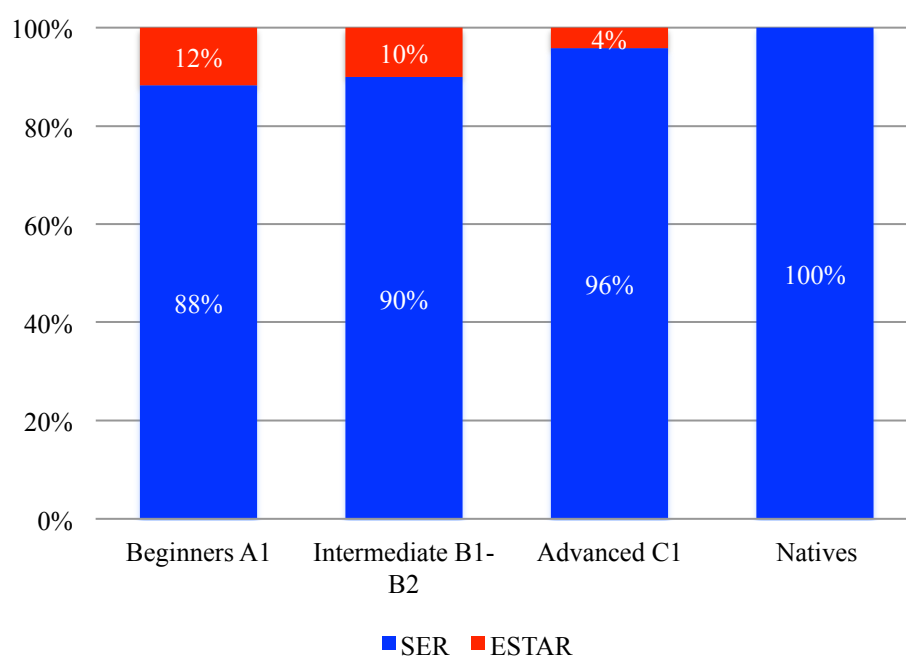
Figure 1. Mean percentages of *ser* and *estar* with IL (only-*ser*) adjectives
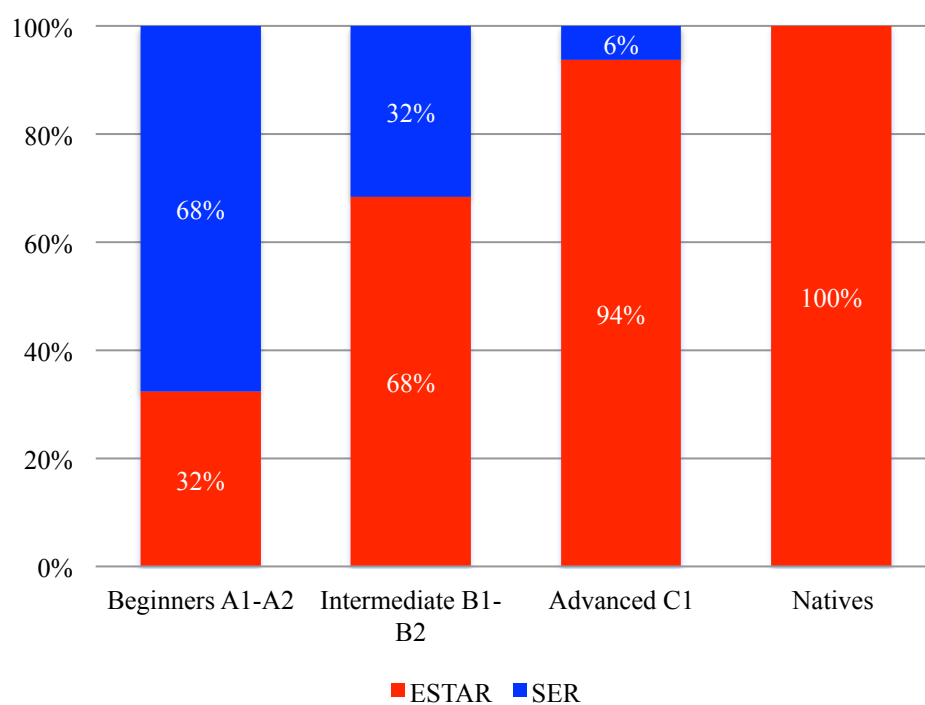
Figure 2. Mean percentages of *ser* and *estar* with SL (only-*estar*) adjectives
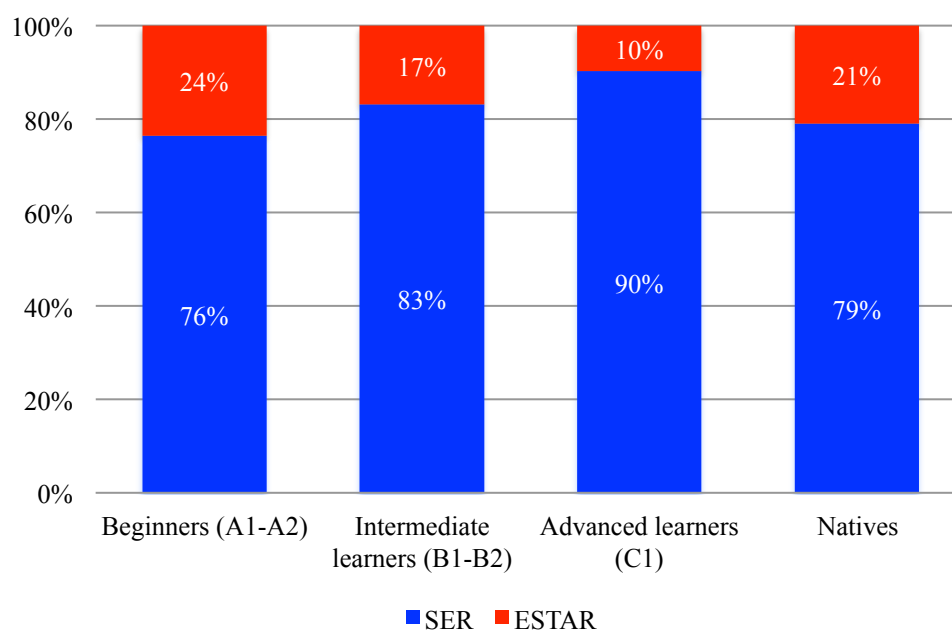
Figure 3. Mean percentages of *ser* and *estar* with dual adjectives in IL contexts
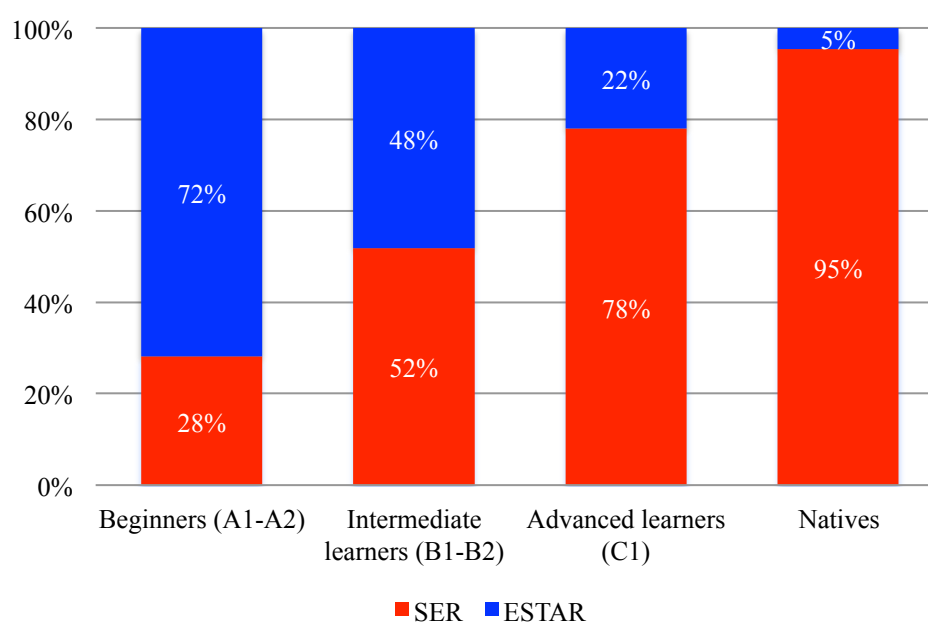
Figure 4. Mean percentages of *ser* and *estar* with dual adjectives in SL contexts
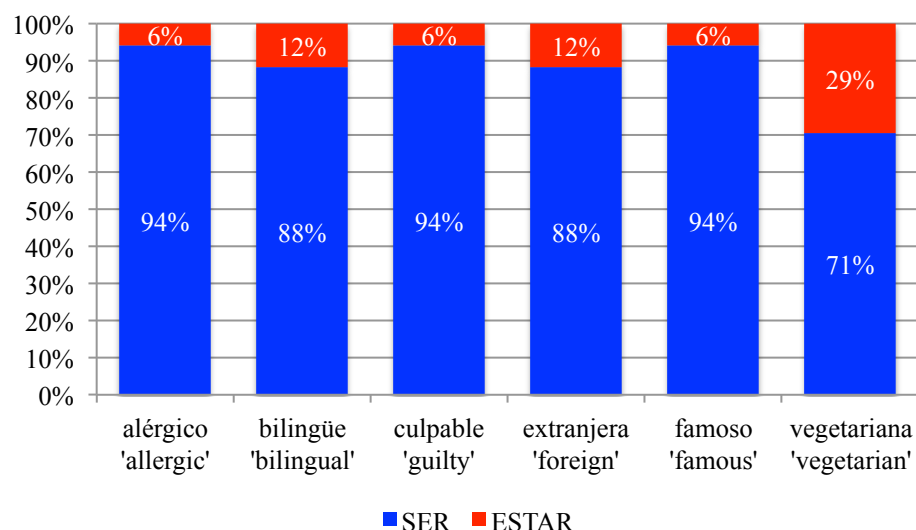
Figure 5. Mean percentages of *ser* and *estar* with IL (only-*ser)* adjectives by beginners
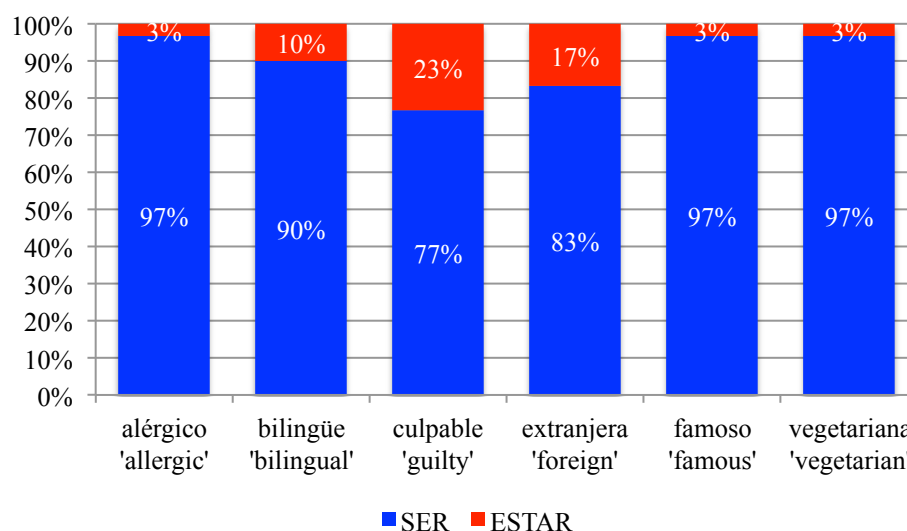
Figure 6. Mean percentages of *ser* and *estar* with IL (only-*ser*) adjectives by intermediate learners
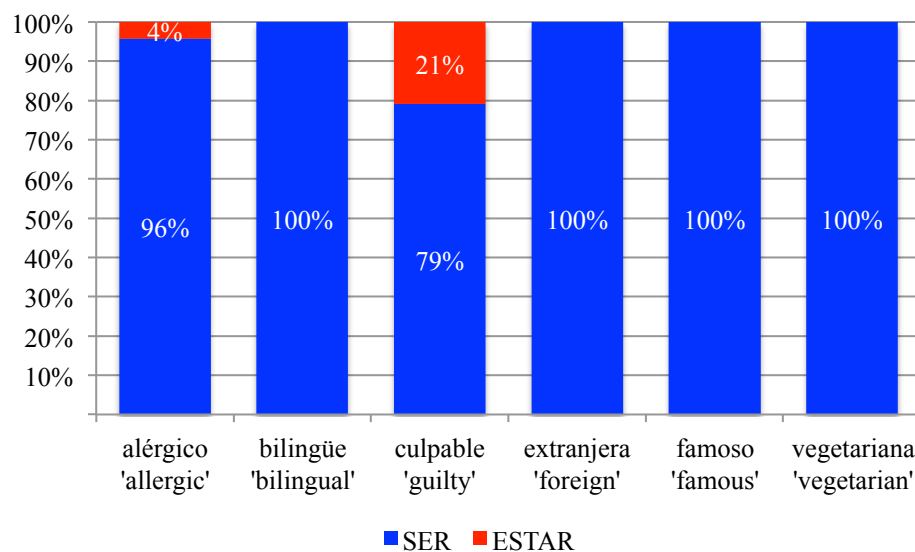
Figure 7. Mean percentages of *ser* and *estar* with IL (only-*ser*) adjectives by advanced learners
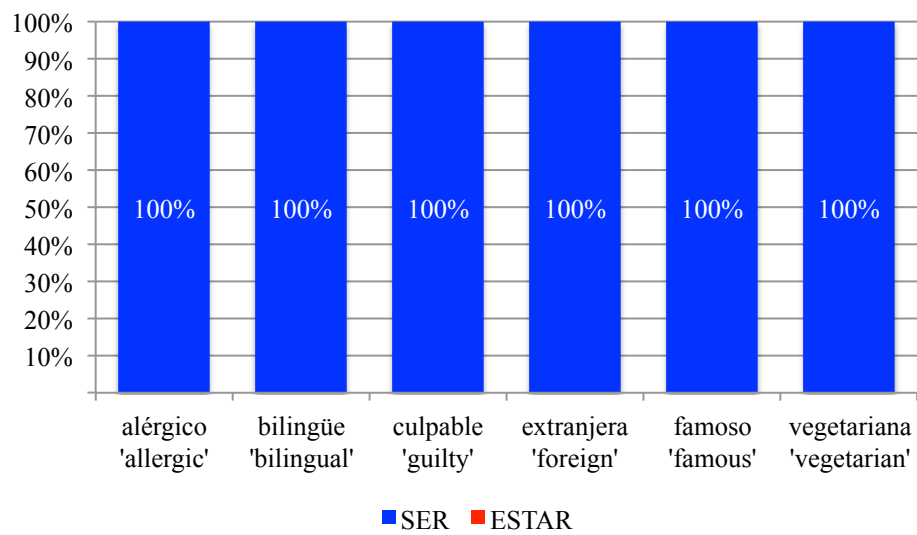
Figure 8. Mean percentages of *ser* and *estar* with IL (only-*ser*) by native speakers
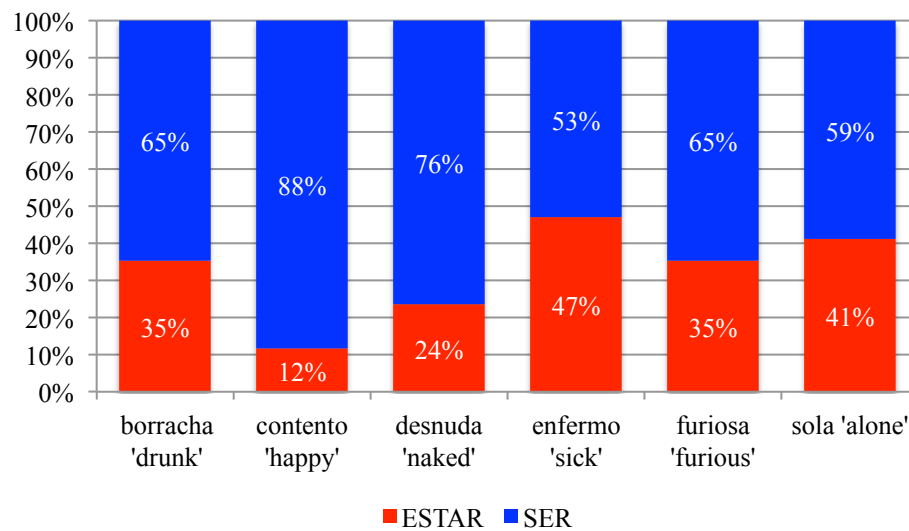
Figure 9. Mean percentages of *ser* and *estar* with SL (only-*estar*) adjectives by beginners
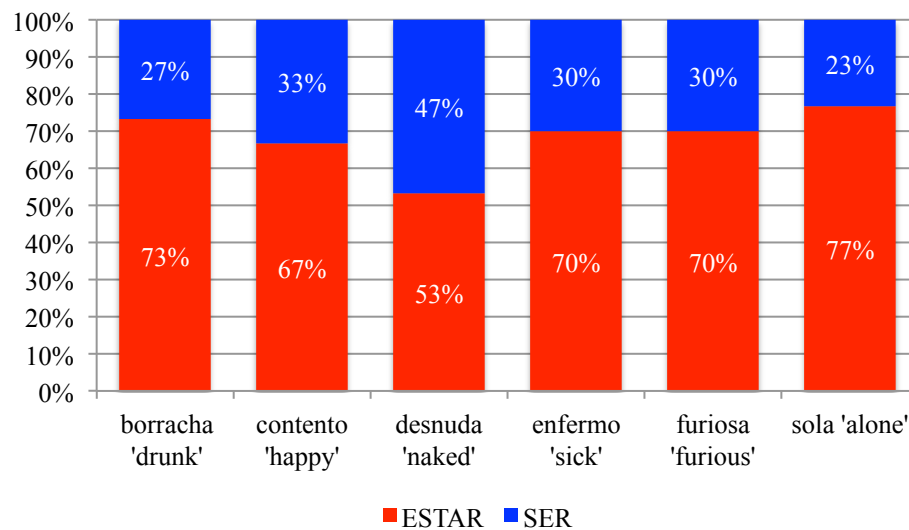
Figure 10. Mean percentages of *ser* and *estar* with SL (only-*estar*) adjectives by intermediate learners

Figure 11. Mean percentages of *ser* and *estar* with SL (only-*estar*) adjectives by advanced learners

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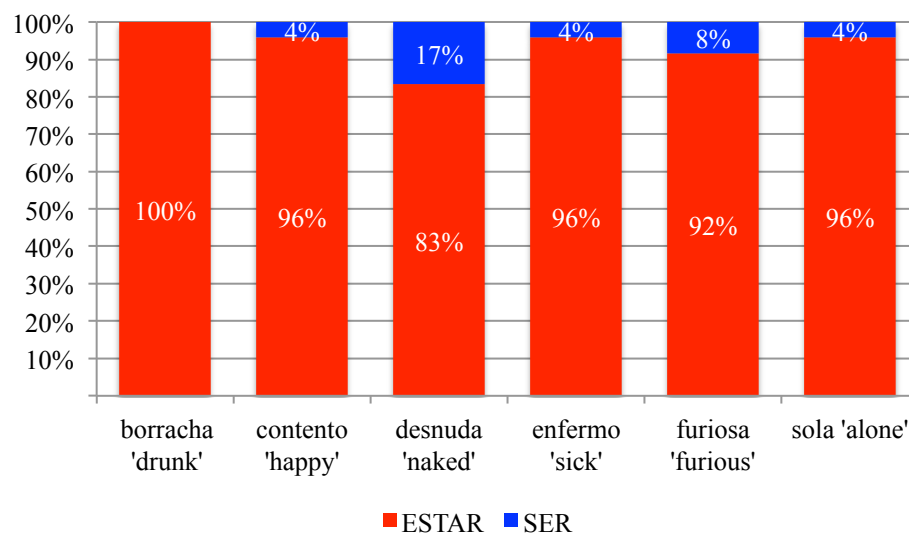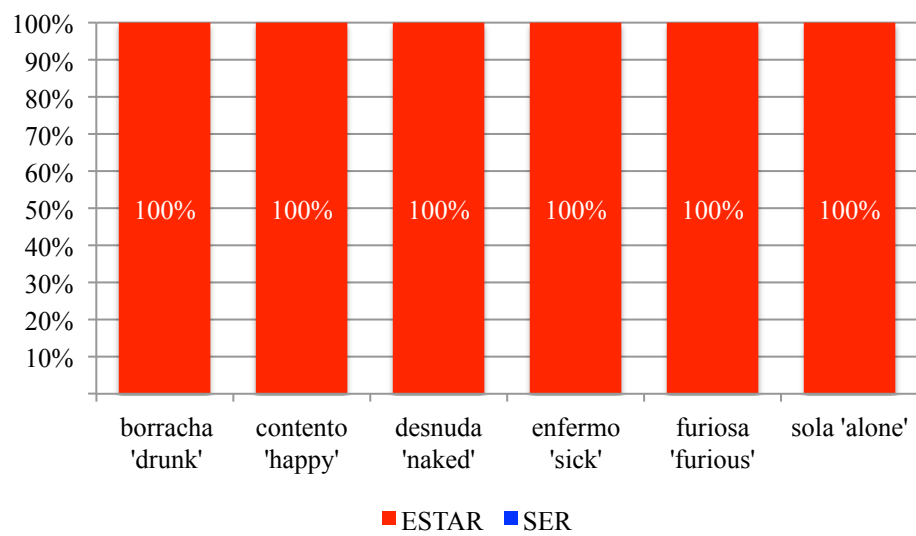
Figure 12. Mean percentages of *ser* and *estar* with SL (only-*estar*)adjectives by native speakers
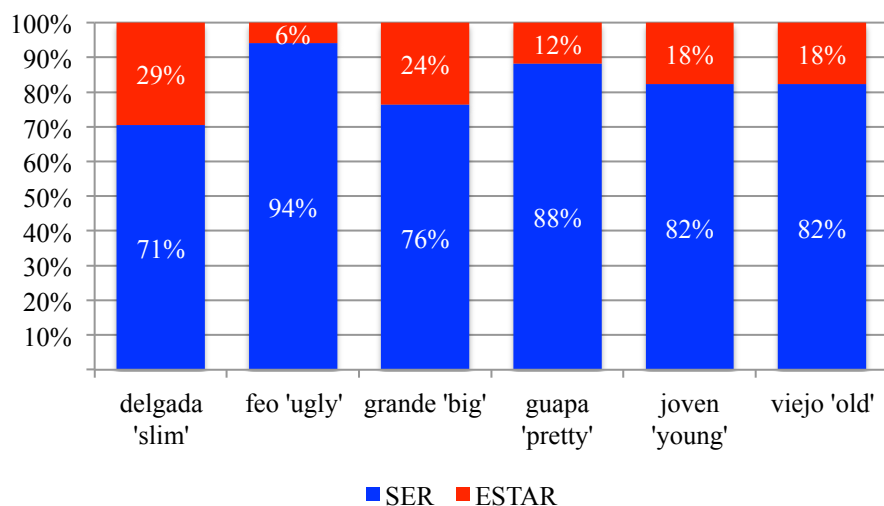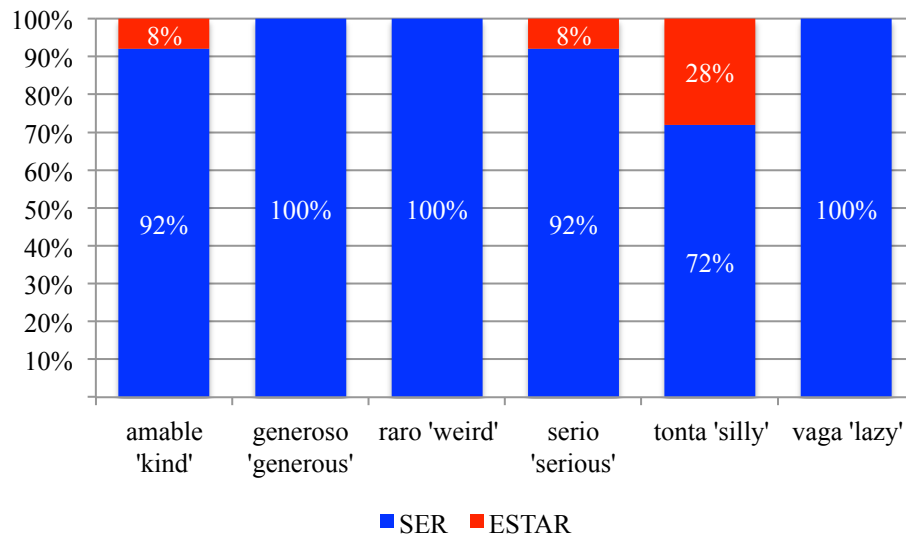
Figure 13. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old) in IL contexts by beginners (T2)
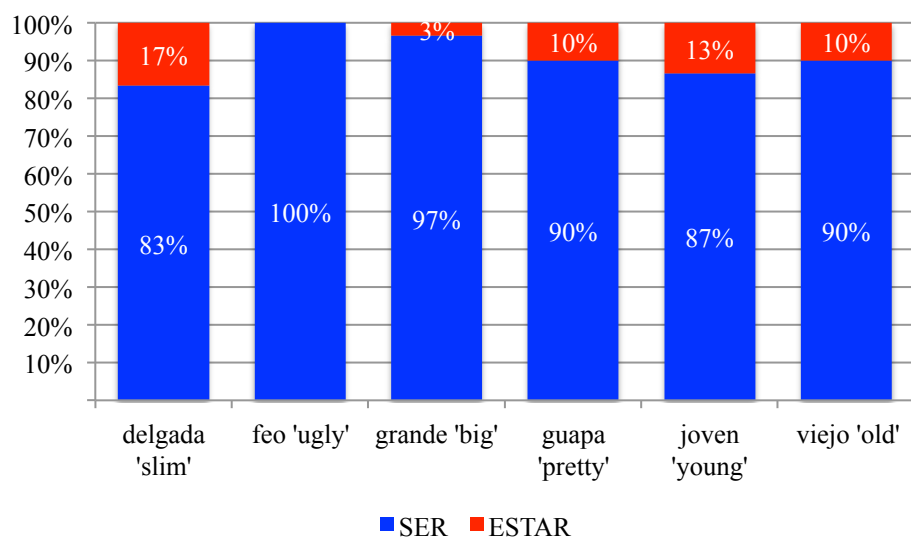
Figure 14. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old) in IL contexts by intermediate learners (T2)

Figure 15. Mean percentages of *ser* and *estar* with with dual dependent-stage (e.g. *viejo* 'old) in IL contexts by advanced learners (T2)

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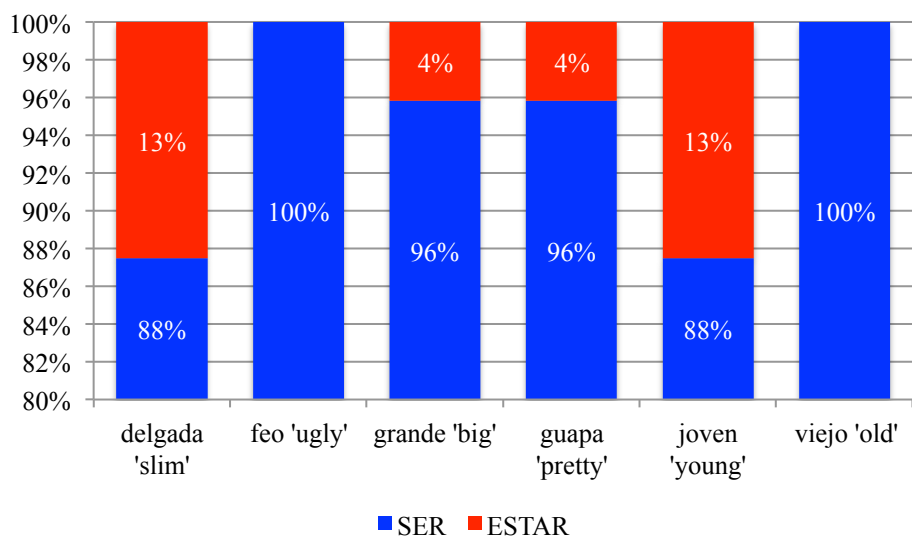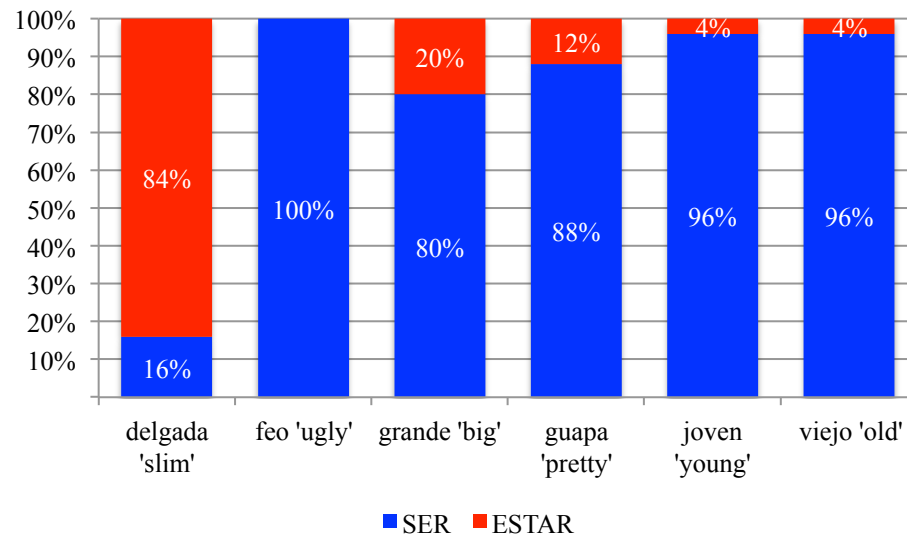
Figure 16. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old) in IL contexts by natives (T2)
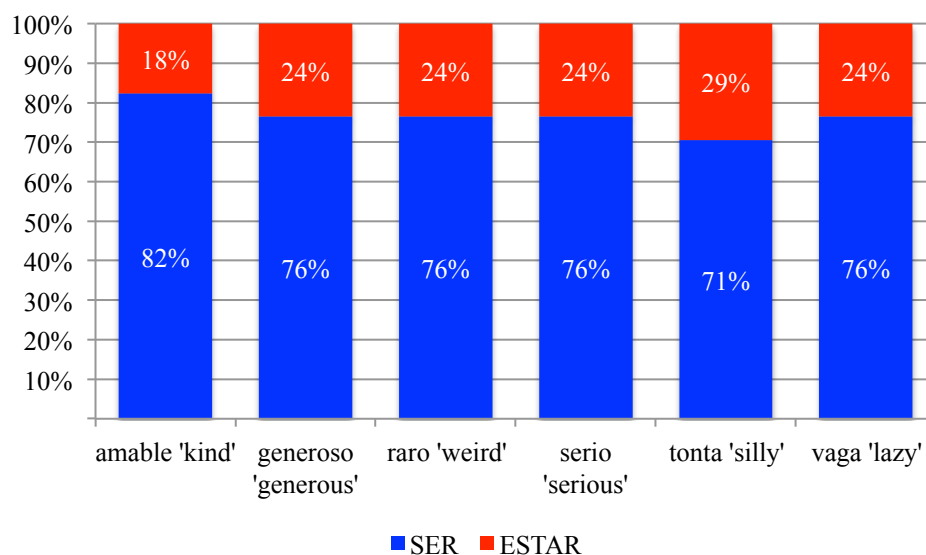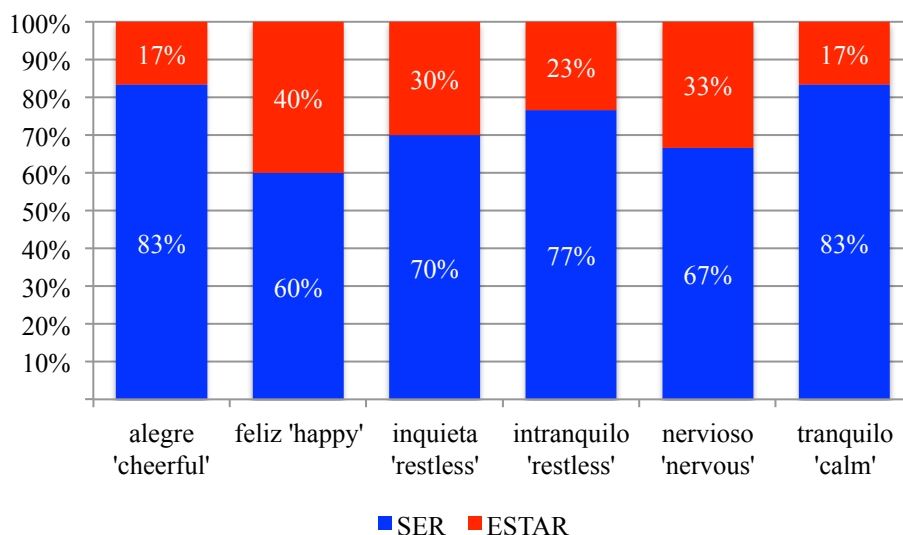
Figure 17. Mean percentages of *ser* ad *estar* with dual dependent-stage (e.g. *amable* 'kind') in IL contexts by beginners (T2)
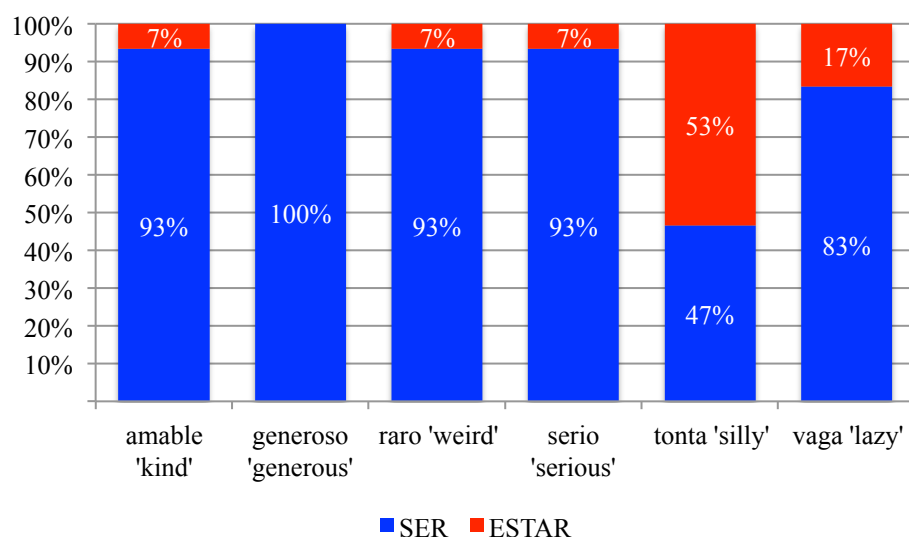
Figure 18. Mean percentages of *ser* and *estar* dual dependent-stage (e.g. *amable* 'kind') in IL contexts by intermediate learners (T2)
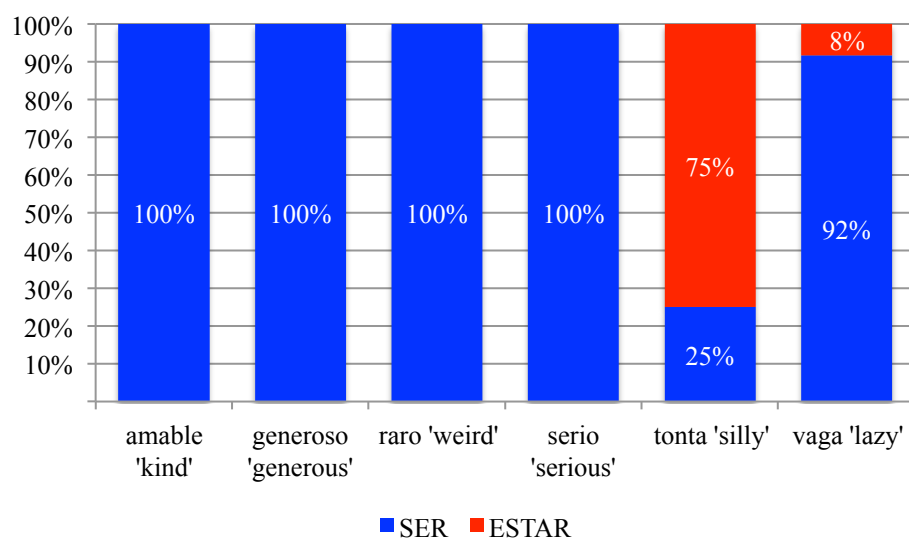
Figure 19. Mean percentages of *ser* and *estar* dual dependent-stage (e.g. *amable* 'kind') in IL contexts by advanced learners (T2)

Figure 20. Mean percentages of *ser* and *estar* dual dependent-stage (e.g. *amable* 'kind')
in IL contexts by natives (T2)
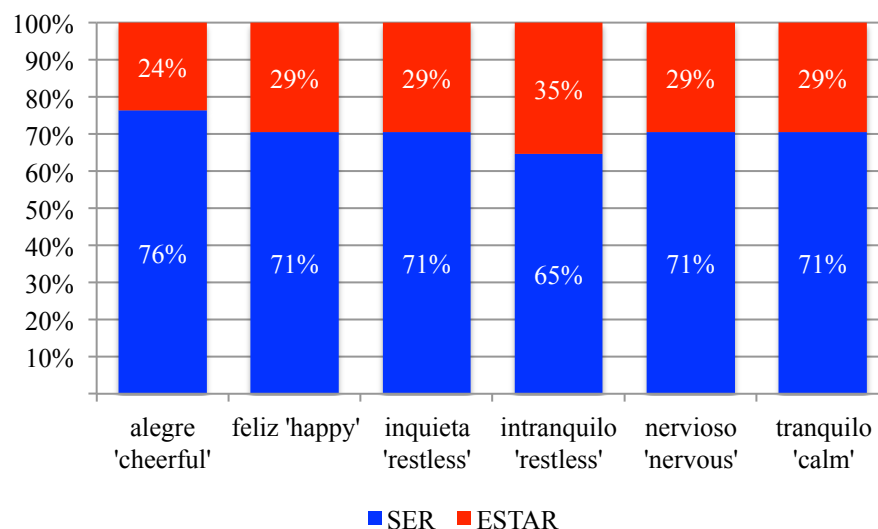
Figure 21. Mean percentages of *ser* and *estar* with dual self-standing stage (e.g. *nervioso* 'nervous') adjectives in IL contexts by beginners (T2)

Graph 22. Mean percentages of *ser* and *estar* with dual self-standing stage (e.g. *nervioso* 'nervous') in IL contexts by intermediate learners (T2)
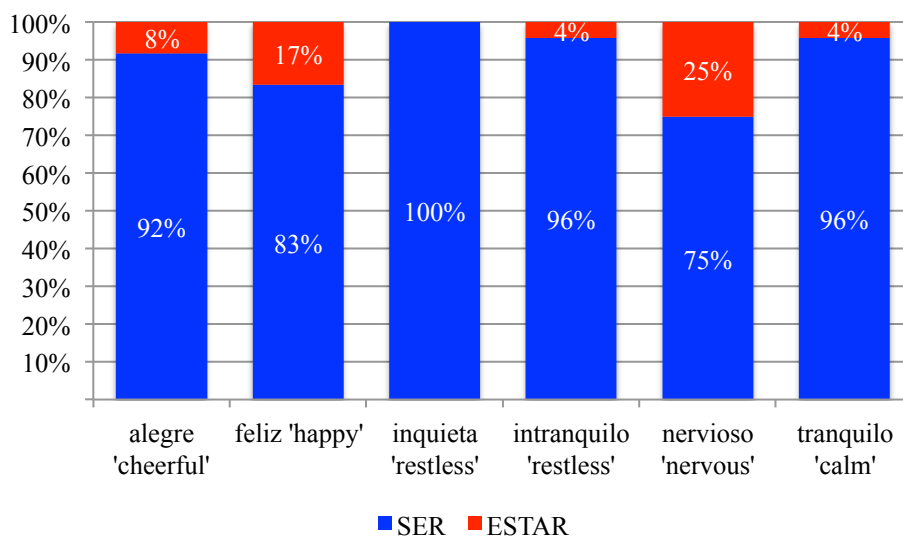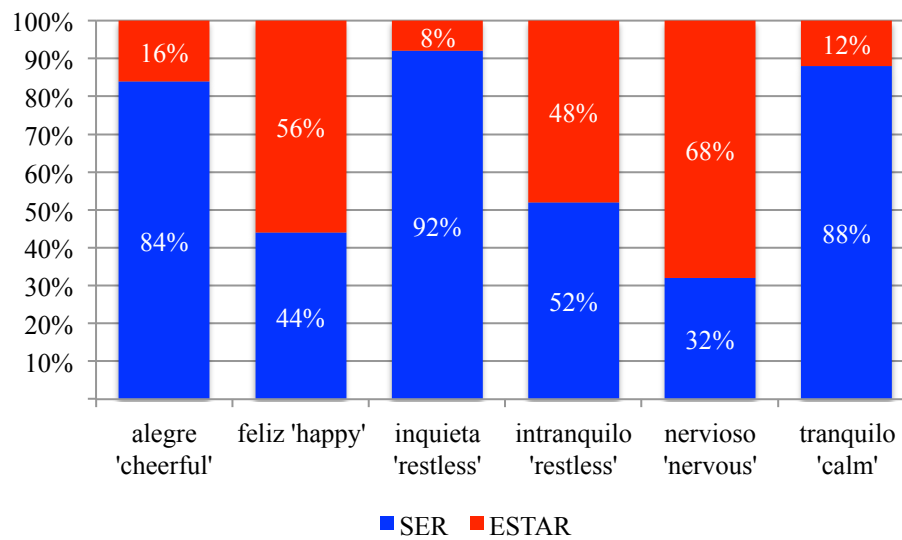

Figure 23. Mean percentages of *ser* and *estar* with dual self-standing stage (e.g. *nervioso* 'nervous') in IL contexts by advanced learners (T2)

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Figure 24. Mean percentages of *ser* and *estar* with dual self-standing stage (e.g. *nervioso* 'nervous') in IL contexts by natives (T2)
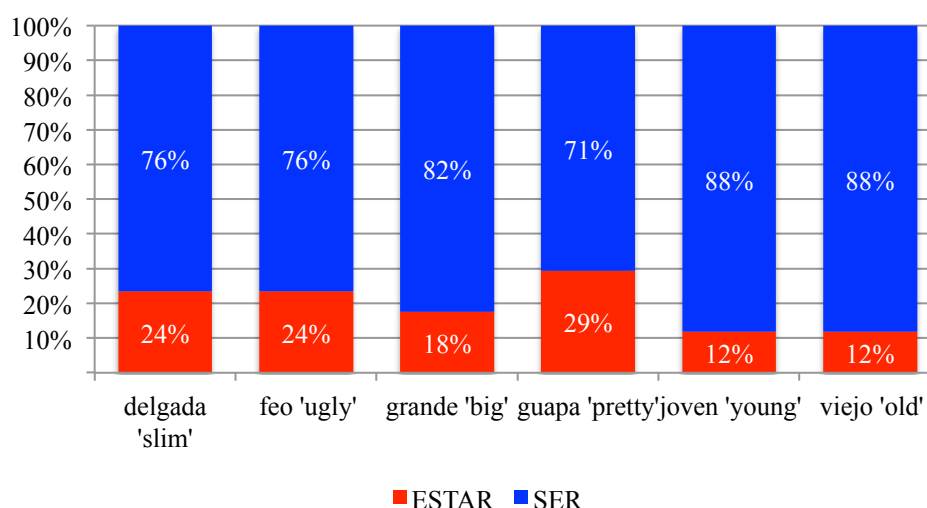
Figure 25. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old') in SL contexts by beginners (T2)
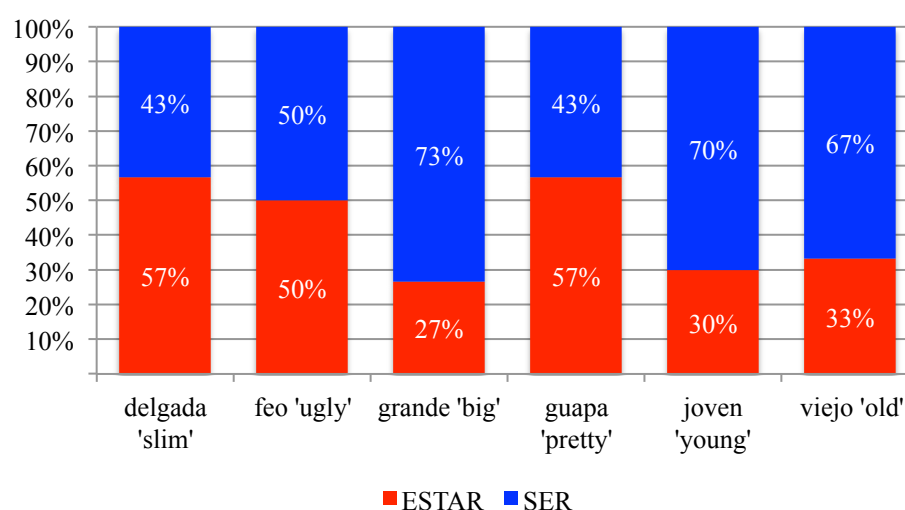

Figure 26. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old') in SL contexts by intermediate learners (T2)
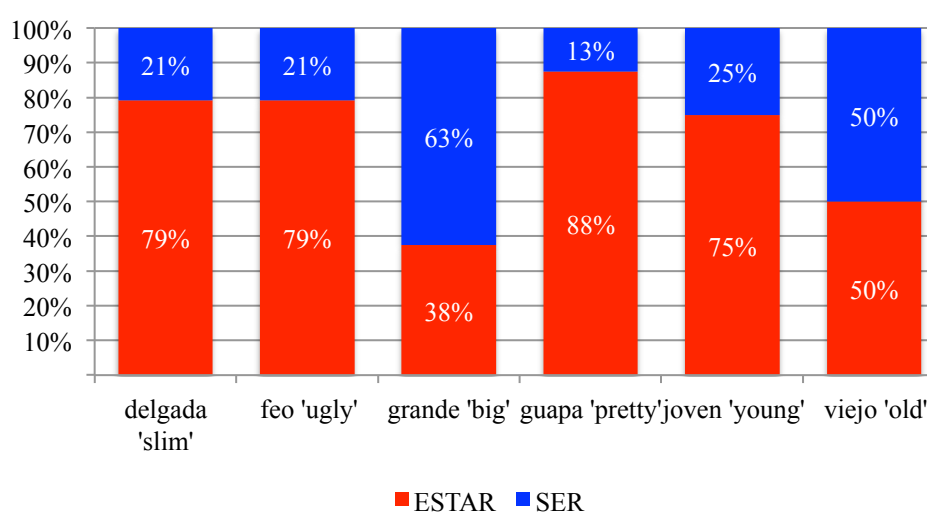

Figure 27. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old') in SL contexts by advanced learners (T2)
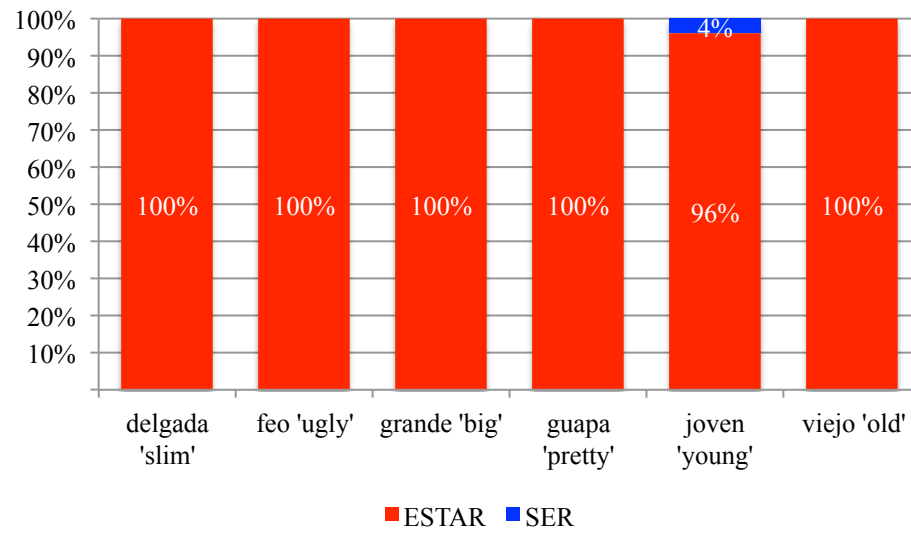
280

Figure 28. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *viejo* 'old') adjectives in SL contexts by natives (T2)
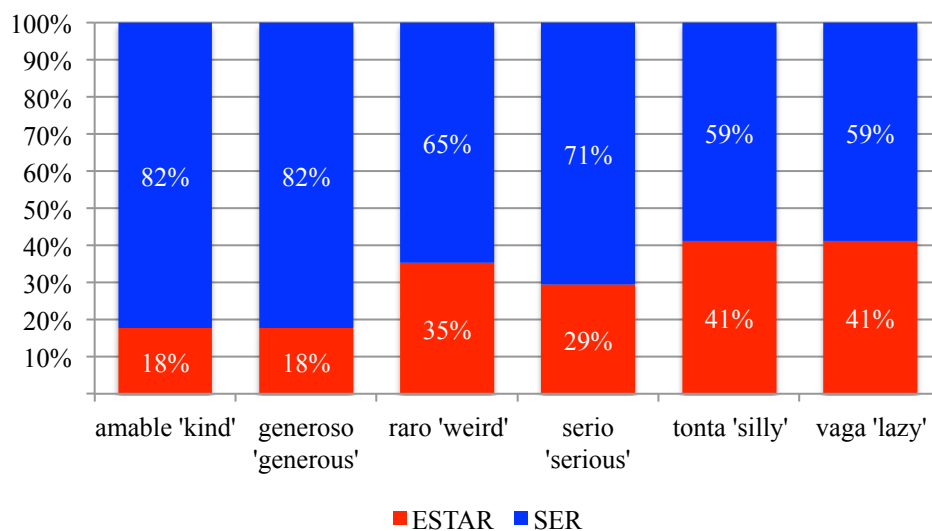
Figure 29. Mean percentages of *ser* and *estar* with dual dependent-stage (e.g. *amable* 'kind') in SL contexts by beginners (T2)
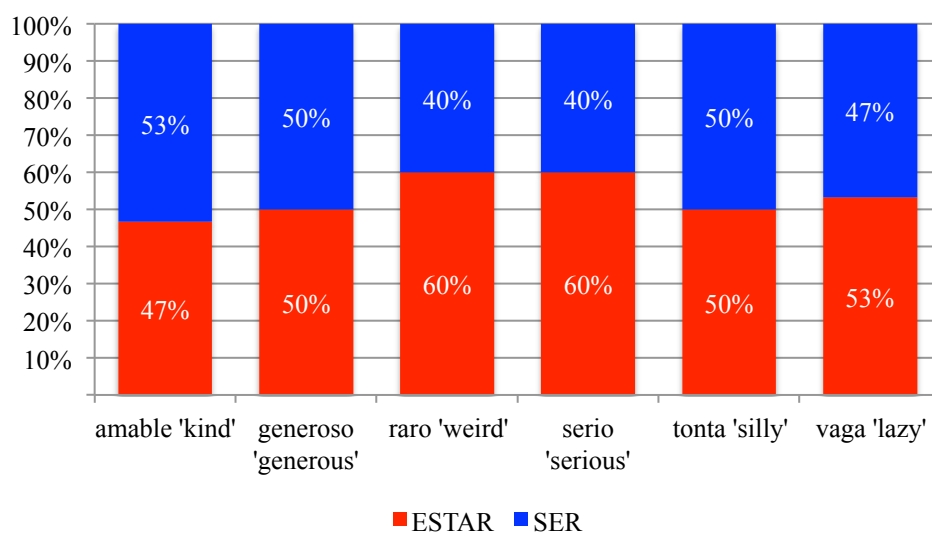

Figure 30. Mean percentages of *ser* and *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') in SL contexts by intermediate learners (T2)
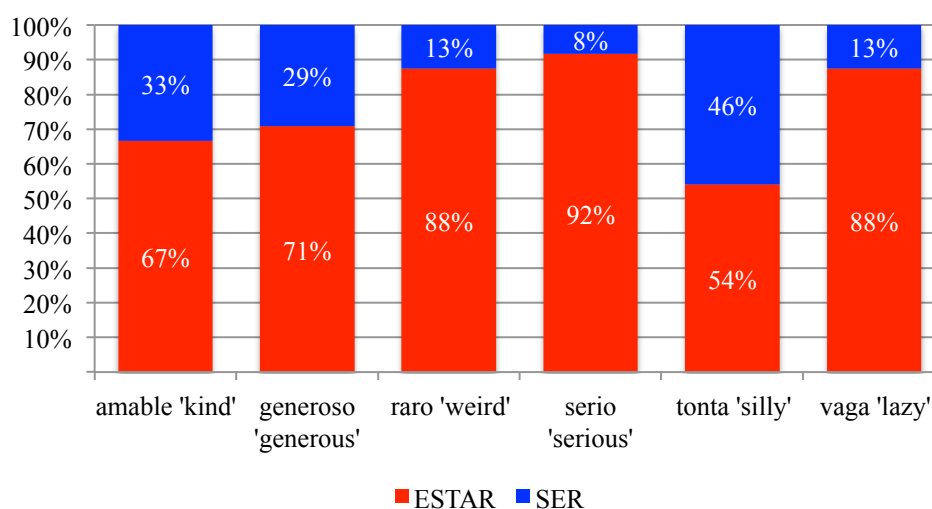

Figure 31. Mean percentages of *ser* and *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') in SL contexts by advanced learners (T2)
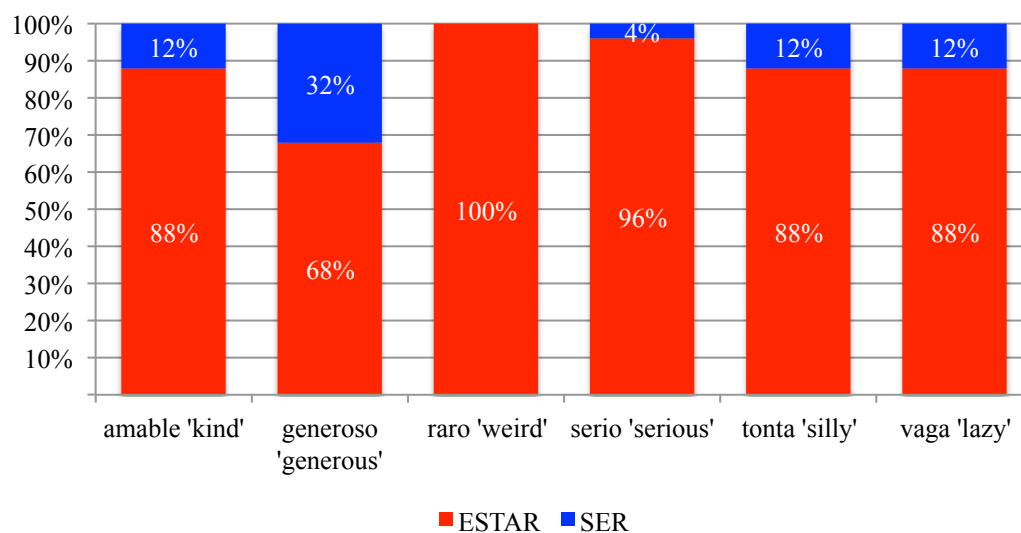
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Figure 32. Mean percentages of *ser* and *estar* with dual dependent-stage adjectives (e.g. *amable* 'kind') in SL contexts by natives (T2)

Figure 33. Mean percentages of *ser* and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts by beginners (T2)

Figure 34. Mean percentages of *ser* and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts by intermediate learners (T2)

Figure 35. Mean percentages of *ser* and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts by advanced learners (T2)
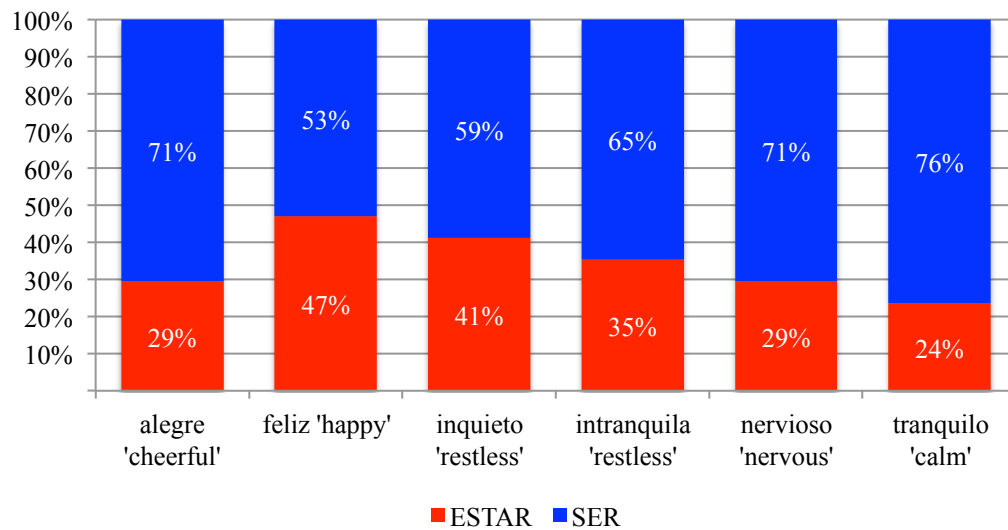
284

Figure 36. Mean percentages of *ser* and *estar* with dual self-standing stage adjectives (e.g. *nervioso* 'nervous') in SL contexts by natives (T2)
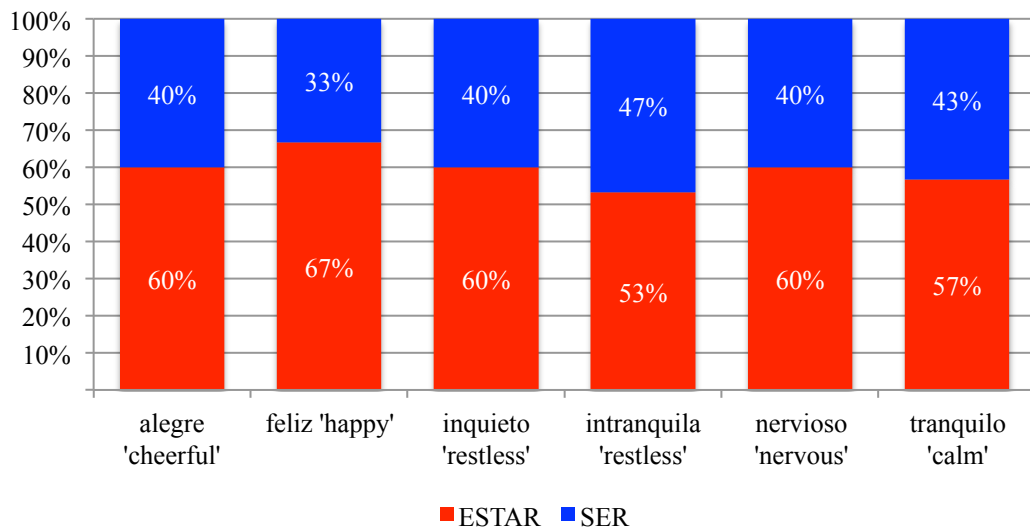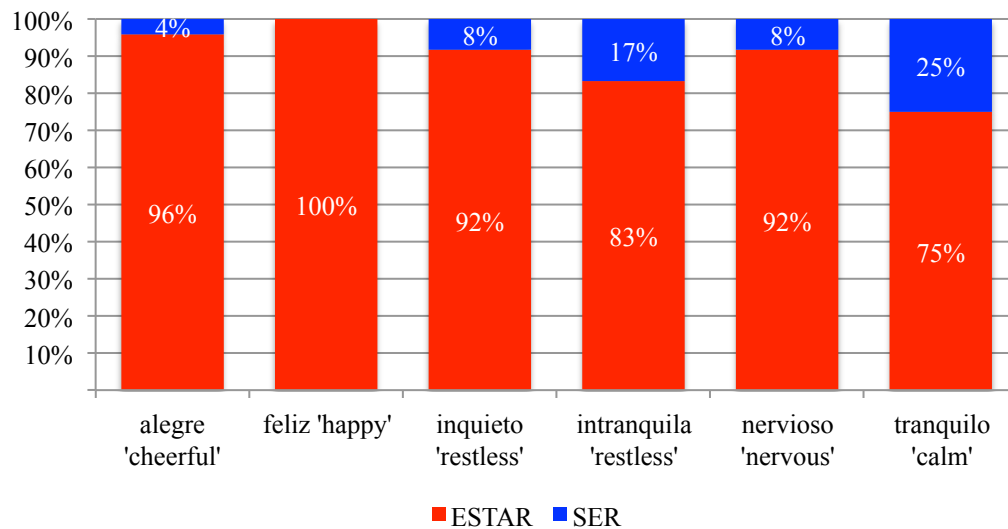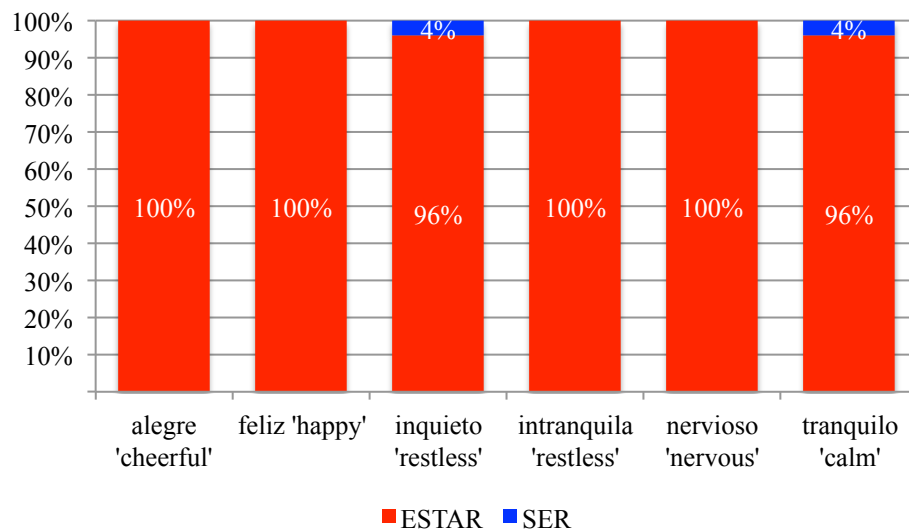
APPENDIX E

Statistical tests

Descriptive statistics

Descriptive Statistics					
	N	Minimum	Maximum	Mean	Std. Deviation
Beginners A1-A2	17	0.2	8	**2.284**	2.7438
Intermediate learners B1-B2	30	0.2	10	**4.433**	2.826
Advanced learners C1	24	4	16	**8.583**	2.2442
Native control group	25	20	38	**26.16**	5.7131

Figure 1. Years studying Spanish as a second language

Example of a within-group comparison

A χ^2 correlation test was performed to find out whether all groups of L2 learners use *ser* and *estar* in a similar manner. This test shows that L2 learners indeed use *ser* with *ser* adjectives (e.g., *famoso* 'famous') in a similar manner regardless of their level of proficiency (p=.066, value= 5.422[a]). Instead, their *estar* selection is statistically different (p=.000, value= 103.972[a]) with *estar* adjectives (e.g., *contento* 'happy').

Group comparison	*ser*	*estar*	Chi-square test
Beginners A1-A2	88%	12%	0.066
Intermediate learners B1-B2	90%	10%	5.422a
Advanced learners C1	96%	4%	

Figure 2. Example of a within-group comparison for oral task with IL adjectives

Group comparison	*ser*	*estar*	Chi-square test
Beginners A1-A2	68%	32%	0
Intermediate learners B1-B2	32%	68%	103.972a
Advanced learners C1	6%	94%	

Figure 3. Example of a within-group comparison for oral task with SL adjectives

A Pearson χ^2 correlation test was performed to measure the difference of each group of L2 learners with respect to the Spanish native group. The figures above show that whereas beginners and intermediate learners performed in a statistical different manner than natives with both copular verbs, the value is higher with *estar*. Note that, the value=139.730[a] obtained for beginners halves the intermediate learners' one (value=57.418[a]). In contrast, advanced learners are slightly better with *ser* (p=.012; 96% of accuracy) than with *estar* (p=.002, 94% of accuracy), although still statistically different.

Copular alternation	Beginners A1-A2		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
ser	90	88%	150	100%	0
estar	12	12%	0	0%	18.529[a]
Total	102		150		

Copular alternation	Intermediate learners B1-B2		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
Copular alternation	FREQUENCY B1	Percentage B1	FREQUENCY NATIVES	Percentage NATIVES	Chi-square test
ser	162	90%	150	100%	0
estar	18	10%	0	0%	15.865[a]
Total	180		150		

Copular alternation	Advanced learners C1		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
ser	138	96%	150	100%	0.012
estar	6	4%	0	0%	6.380a
Total	144		150		

Figure 4. Example of a between-group comparison of *ser* with IL adjectives (task 1)

Copular alternation	Beginners A1-A2		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
ser	69	68%	0	0%	0
estar	33	32%	150	100%	139.730[a]
Total	102		150		

Copular alternation	Intermediate learners B1-B2		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
Copular alternation	FREQUENCY B1	Percentage B1	FREQUENCY NATIVES	Percentage NATIVES	Chi-square test
ser	57	32%	0	0%	0
estar	123	68%	150	100%	57.418[a]
Total	180		150		

Copular alternation	Advanced learners C1		Natives		
	Number of tokens	Percentage	Number of tokens	Percentage	Chi-square test
ser	9	6%	0	0%	0.002
estar	135	94%	150	100%	9.671[a]
Total	144		150		

Figure 5. Example of a between-group comparison of *estar* with SL adjectives (task 1)

APPENDIX F

Order of copular acquisition in an L2

	Acceptance of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Acceptance of *estar* in grammatical (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)	Rejection of *ser* in ungrammatical (SL (only-*estar*) adjectives) and infelicitous combinations (SL contexts)	Rejection of *estar* in ungrammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production *estar* (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)
dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	83%	84%	54%	55%	71%	34%
dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind')	87%	75%	57%	61%	76%	30%
dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	81%	67%	53%	58%	82%	20%
IL(only-*ser*) adjectives (e.g. *famoso* 'famous')	78%		66%		88%	
SL(only-*estar*) adjectives (e.g. *contento* 'happy')		75%		68%		32%

Table 1. Mean percentage of *ser* and *estar* in the comprehension and production tasks by beginners (A1-A2)

	Acceptance of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Acceptance of *estar* in grammatical (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)	Rejection of *ser* in ungrammatical (SL (only-*estar*) adjectives) and infelicitous combinations (SL contexts)	Rejection of *estar* in ungrammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production *estar* (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)
dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	95%	94%	82%	75%	73%	59%
SL (only-*estar*) adjectives (e.g. *contento* 'happy')		91%		68%		68%
dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind')	91%	91%	79%	68%	85%	54%
dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	89%	77%	59%	68%	91%	42%
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	83%		66%		90%	

Table 2. Mean percentage of *ser* and *estar* in the comprehension and production tasks by intermediate learners (B1-B2)

	Acceptance of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Acceptance of *estar* in grammatical (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)	Rejection of *ser* in ungrammatical (SL (only-*estar*) adjectives) and infelicitous combinations (SL contexts)	Rejection of *estar* in ungrammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production of *ser* in grammatical (IL (only-*ser*) adjectives) and felicitous combinations (IL contexts)	Oral production *estar* (SL (only-*estar*) adjectives) and felicitous combinations (SL contexts)
SL (only-*estar*) adjectives (e.g. *contento* 'happy')		99%		89%		94%
dual self-standing stage adjectives (e.g. *nervioso* 'nervous')	98%	97%	84%	83%	90%	90%
dual dependent-stage adjectives of dispositions (e.g. *amable* 'kind')	98%	90%	84%	84%	86%	76%
dual dependent-stage adjectives of physical appearance (e.g. *viejo* 'old')	94%	84%	74%	86%	94%	68%
IL (only-*ser*) adjectives (e.g. *famoso* 'famous')	97%		69%		96%	

Table 3. Mean percentage of *ser* and *estar* in the comprehension and production tasks by advanced learners (C1)