

Internal and external interfaces: Some challenges in acquiring SER and ESTAR in L2 Spanish

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Abstract

Understanding how *ser* and *estar* contrast is one of the greatest challenges in the grammar of L2 Spanish, but not all the uses of these verbs are equally complex to learn. This study explores two kinds of uses: (a) the alternation between *ser* and *estar* with participles; and (b), the combination of *estar* with unbounded adjectives. Thus, we analyse two types of L2 learning challenges: the combination of these copulas with participles involves the syntax-semantics interface, whereas interpreting *estar* uses with unbounded adjectives requires processing at the syntax-semantics-pragmatics interface. As an exploration into the challenges of acquiring these different interface phenomena, we present a study comparing the copula choices, interpretations and acceptability judgements of three groups of Spanish speakers: native speakers of European Spanish (N=48), upper intermediate and advanced L2 Spanish learners with two different L1s: L1 French (N=46) and Portuguese (N=30). Results show clear

effects of crosslinguistic influence on the acquisition process. All of the participant groups showed greater variability in the tasks probing the syntax/semantics/pragmatics interface as compared to those involving syntax/semantics interface phenomena. However, the learner groups, especially the L1 French group, were prone to greater variability than the L1 Spanish speakers.

Keywords: Internal and external interfaces, copular verbs, French, Portuguese, Spanish.

1. Introduction

This article takes up the special issue theme of interfaces in relation to data compiled in a study of the acquisition of the Spanish copular verbs *ser* and *estar* by learners with French or Portuguese as their first languages. These two verbs represent a classic challenge for L2 Spanish learners; the distinction between them has been analysed from a range of perspectives leading to numerous descriptions (more on this in the next section).¹ Nevertheless, our topic is especially relevant for the theme of linking challenges in second language acquisition (SLA) to interface issues.

Ample literature has explored the relevance and empirical evidence related to the Interface Hypothesis (IH), first formulated by Sorace and colleagues (see Sorace 2011, 2012 and references therein). In particular, a substantial body of research has examined the relevance for bilingual speakers (and in some cases, for SLA) of internal interfaces, involving formal features and computations within the language system such as at syntax-semantics points of contact, as opposed to external interfaces involving syntax and discourse interactions (Tsimplici and Sorace, 2006; Sorace and Serratrice, 2009; White, 2011; Montrul, 2011; Dugorava, 2014).

Research has so far suggested that the external language interfaces (especially, the syntax-semantics-pragmatics interface) pose greater challenges for bi/multilinguals, heritage speakers and second language learners (Guijarro-Fuentes, Ahern and Amenós-Pons 2020, and references therein). The phenomena analysed as involving these interfaces are related to cases in which the language faculty (which includes syntax and semantics), an internal, psychobiological entity, interacts with external information and phenomena present in the situations in which language is used for communication. Thus, recent studies have emphasised the role of processing factors in the difficulties faced (Laka 2017), and highlighted the challenges faced by bilingual or multilingual individuals, as well as L2 learners, in coordinating syntax with contextual, discourse-pragmatic information.

Considering the challenges of the syntax-semantics-discourse (or syntax-semantics-pragmatics) interface, a series of studies have taken into account the need for more focus on the pragmatic mechanisms involved in processing. In this article, we propose to offer insights precisely in this area, by considering interface phenomena from the angle of Relevance Theory (Sperber and Wilson [1986], 1995), a cognitive pragmatic theory that accounts for verbal communication as an ostensive-inferential process, and which is compatible with generative linguistic viewpoints. Based on the

¹ As this article does not address the interesting and worthwhile area of third and additional languages as a crucial area of study, we use the label “second language” and L2 in a generic sense to refer to second and additional languages.

relevance-theoretical perspective (Sperber and Wilson [1986] 1995: 86–92; Curcó 2011; Escandell Vidal; 2017, among others), interface phenomena can be framed as relating to the differentiation between lexical and functional categories.

On this view, following Hauser, Chomsky and Fitch (2002), the linguistic system consists of sets of attributes that are read by the modules or sub-systems of the language faculty: phonological, computational and conceptual attributes. Functional categories encode only phonological and computational information, as opposed to lexical categories, which include all three kinds of attributes: phonological, computational and conceptual. An outstanding characteristic of lexical categories is that they denote concepts, or in other words, they map onto semantic and conceptual representations, which, as explained by Escandell-Vidal (2017: 81) “give access to encyclopaedic information about the kinds of entities that constitute the denotation of the concepts involved, including general world knowledge and experiential properties.” Functional categories, on the other hand, encode rules, instructions or functions that specify how other constituents are to be combined, triggering a range of processing operations. In relevance-theoretic terms, the type of meaning encoded in functional categories is called procedural meaning, as opposed to conceptual meaning (see Escandell-Vidal, Leonetti and Ahern 2011 for an overview of this contrast, focusing on procedural meaning).

Interpretable features trigger these processing operations in the interface systems. For instance, as Escandell-Vidal (2017: 83) also explains, the Complementizer position is described as hosting features that constrain modality and illocutionary force (Rizzi 1997). Likewise, the (contrastive) Focus position, in addition to assigning a prosodic feature in the articulatory system, activates a trigger to identify a relevant set of alternatives.

According to Relevance Theory (henceforth, RT), human cognition tends to be geared to the maximisation of relevance; in other words, mental activity follows a universal principle consisting of searching for optimal relevance, based on a cost/benefit procedure (Sperber and Wilson [1986] 1995). Communication is an ostensive-inferential process, as the encoded meaning of an utterance provides the addressee with input for the set of inferential processes that are activated by the recognition of the speaker’s communicative intention.

In this article, we adopt a RT perspective and develop, considering the role of procedural meaning as described above, analyses of the relative difficulty of acquiring properties that determine a distinction in the grammaticality of *ser-estar* with past participles, where the semantics-syntax interface is at play, as opposed to with individual-level predicates, where the verb selection requires processing at the syntax-semantics-pragmatics interface. In our study, we analyse uses of *estar* combined with Individual Level (henceforth, IL) Predicates: a combination that triggers the inferential attribution of experiential evidential meaning, whereby speaker-direct experience is identified as the information source of the content expressed. The theoretical bases from RT introduced above will be shown to offer plausible explanations, firstly, of how the combination of *estar* and IL adjectives leads, by means of inferential processes in which procedural expressions are involved, to evidential interpretations; and secondly, for why phenomena that involve external, syntax-pragmatic interface processing are challenging and hard to acquire and maintain in the form of solid mental representations of the grammar, which in turn increases their potential vulnerability to attrition.

The remainder of the paper is organised as follows. Section 2 presents an overview of the morphosyntactic domain under investigation in Spanish, French and Portuguese. Section 3 reviews some relevant previous studies. Section 4 presents the empirical study conducted for this investigation, together with the experimental results and general discussion and in Section 5 we put forth our concluding remarks.

2. Copular verbs in Spanish, French and Portuguese

While French has a single copula (*être* ‘to be’), Spanish and Portuguese have two different verbs (*ser* / *estar* ‘to be’), though these languages differ in the restrictions on which copula is used with adverbial locatives, adjectives and eventive subjects (Pérez-Jiménez, Gumiel-Molina and Moreno-Quibén 2018, 2021). In this section, we will offer some basic observations on the use of the copular verb(s) in these three languages, paying special attention to the use of *estar* / *être* in the two types of construction we include in our research: copula + participle in passive constructions and copula + IL-adjective.

2.1. Passive constructions [copula + participle] in Spanish and Portuguese

Ser, in Spanish and Portuguese, is the prototypical auxiliary for passive constructions. These constructions have many syntactic restrictions; in Spanish and Portuguese passive sentences are usually only formed with transitive verbs. Also, passive sentences cannot be formed from indirect objects in Spanish (RAE/ASALE 2009: 3041; Mateus et al. 2003: 529):²

- (1) Spanish
*Los ganadores fueron dados el premio
- (2) Spanish
*Os vencedores foram dados o prémio
‘The winners were [*ser*] given the prize’

Thus, periphrastic passives are intransitive structures that are formed with transitive verbs. In these passive constructions, the direct object of an active sentence becomes the subject of the passive sentence, while retaining its thematic role as patient. As for the grammatical subject of the active sentence, in passive constructions with *ser*, it may be explicitly included as an agent complement, or omitted, so that the agent is merely implicit:

- (3) a. Spanish
Un portavoz anunció la noticia
‘A spokesman announced the news’

² The non-existence in Spanish of past participle passives with an impersonal value is covered by reflexive impersonals, which are constructed with the pronoun *se* (*Se descendió al pozo* ‘Someone descended into the well’).

- b. Portuguese
 - Um porta-voz anunciou a notícia
 - ‘A spokesman announced the news’
- (4)
 - a. Spanish
 - La noticia fue anunciada por un portavoz
 - ‘The news was [*ser*] announced by a spokesperson’
 - b. Portuguese
 - A notícia foi anunciada por um porta-voz
 - ‘The news was [*ser*] announced by a spokesperson’
- (5)
 - a. Spanish
 - La noticia fue anunciada
 - ‘The news was [*ser*] announced’
 - b. Portuguese
 - A notícia foi anunciada
 - ‘The news was [*ser*] announced’

Passive sentences have commonalities with copular sentences. In both constructions, there is gender and number agreement between the subject and the attribute or participle. There are, however, differences between the two structures. Participles have verbal traits, but adjectives do not. Adjectives refer to properties or states, whereas participles designate resulting states, but they can also refer to the events themselves. In addition, participles are characterised in that they possess agents - expressed or concealed – while adjectives do not.

Some present-day adjectives originate from participles, yet they differ in their syntactic restrictions. For example, the adjective *viajado* (a ‘well-travelled’ person) does not inherit the complements of the verb *viajar* ‘to travel’: it is not possible to say **Alberto era una persona muy viajada por América* ‘Alberto was well travelled in America’. Adjectives are opaque to the action or process denoted by the verb (RAE/ASALE 2009: 2095).

The semantic restrictions imposed by *ser* and *estar* on the participles they accept are shared by Spanish and Portuguese. In both languages, *ser*-passive constructions are grammatically possible with all lexical aspect types, although they are less frequent and less natural with states (RAE/ASALE 2009: 3047). Conversely, *estar* highlights the result of a previous process and is only compatible with participles of verbs that designate the effect of a change of state. The participle of transitive change of state verbs are compatible with *ser* and *estar*, but each verb induces different interpretations:

- (6)
 - a. Spanish
 - El restaurante fue cerrado por un problema sanitario
 - b. Portuguese
 - O restaurante foi encerrado devido a um problema de saúde
 - ‘The restaurant was [*ser*] closed due to a health problem’
 - (7)
 - a. Spanish
 - El restaurante estuvo (tres meses) cerrado por un problema sanitario

b. Portuguese

O restaurante esteve (três meses) fechado devido a um problema de saúde
 ‘The restaurant was [*estar*] closed (for three months) due to a health problem’

Estar systematically rejects not only transitive state verbs, but also transitive activities (8) unless they can be contextually seen as telics. On the other hand, unlike *ser*, *estar* can be compatible with intransitive verbs, if they express a change of state, as in (9) and (10):

(8) a. Spanish

*El paisaje está mirado (por los arquitectos)

b. Portuguese

*A paisagem está analisada (pelos arquitectos)
 ‘The landscape is [**estar*] looked at (by the architects)’

(9) a. Spanish

Mañana la noticia ya estará divulgada
 ‘Tomorrow the news will (already) be spread’

b. Portuguese

Amanhã a notícia já estará divulgada
 ‘Tomorrow the news will (already) be spread’

(10) a. Spanish

Marcos **fue/estuvo* perdido en el bosque
 ‘Marcos was [**ser/estar*] lost in the forest’

b. Portuguese

O Marcos **foi/esteve* perdido na floresta
 ‘Marcos was [**ser/estar*] lost in the forest’

The syntactic status of *estar* + participle is a debated issue. On the one hand, participles are verb forms and can be compatible with the mention of an agent introduced by the preposition *por* ‘by’. Thus, *estar* + participle constructions have sometimes been considered passive result structures (Gili Gaya 1943; Alcina and Blecua 1975; Conti-Jiménez 2004). On the other hand, the fact that these constructions are (unlike passives in Spanish and Portuguese) compatible with intransitive verbs and the numerous restrictions in their combinations with *por* + agent sets them apart from passives: they have often been considered result (not passive) constructions (Delbecque and Lamiroy 1999; Moreno Cabrera 2011, RAE/ASALE 2009), or a mere subtype of copular structures (Silvagni 2021; Mateus et al. 2003). In this article, the terms *passive* and *eventive passive* will be used to refer to *ser* + participle, while the term *resultative constructions* will be preferred for *estar* + participle.

Fábregas and Marín (2021) argue that it cannot be assumed that all the combinations of *estar* + participle have a resultative sense. The authors list three kinds of participles that combine with *estar* without necessarily focusing on the result of a previous event: those of psychological experience verbs (such as *preocupado* ‘worried’ or *aburrido* ‘bored’), those of extension verbs (such as *rodeado* ‘surrounded’ or *cubierto* ‘covered’) and those of Davidsonian state verbs (such as *vigilado* ‘guarded’ or *gobernado* ‘governed’). However, as the authors themselves acknowledge, the

aspectual composition of these types of verbs is still a debated issue, even though it is a fact that the resultative sense of a participle combined with *estar* can be more or less salient depending on the verb and on the environment where it appears.

From our own theoretical approach, such fluctuation is not surprising, since we assume that the meaning of linguistic expressions does not fully determine their interpretation and that contextual enrichment is a ubiquitous and systematic process in the interpretation of every utterance. Contextual enrichment is regularly linked to (some degree of) variability. However, considering different types of language constructions, the contribution of pragmatics is not always equally decisive and can occur to changing degrees; this results in processes of interpretation of varying complexity, requiring adjustable degrees of cognitive effort (which in turn translate in the perception of a construction as pragmatically marked or not). In the case of the constructions with *ser* / *estar* + participle, semantics and syntax establish very clear and systematic restrictions: an eventive passive always requires *ser*, whereas *estar* favours resultative interpretations. None of these interpretations is pragmatically marked. In the light of these facts, we will assume that the alternation of the types of interpretation in *ser* / *estar* + participle constructions is primarily located at the semantics-syntax interface, and that the contribution of pragmatics plays a secondary role (see also Bruhn de Garavito and Valenzuela 2008 for an analysis of eventive and stative passives in Spanish at the syntax-semantics interface).

2.2. Passive constructions [copula + participle] in French

French has a single copular verb, *être* ‘to be’, which is also used as tense auxiliary, along with *avoir* ‘to have’. However, the utilization of *être* as a compound tense auxiliary is restricted to specific verb types: reflexive verbs and a small group of intransitive, non-agentive, change of state verbs (the most frequent are *aller* ‘to go’, *apparaître* ‘to appear’, *arriver* ‘to arrive’, *décéder* ‘to pass away’, *devenir* ‘to become’, *intervenir* ‘to intervene’, *mourir* ‘to die’, *naitre* ‘to be born’, *partir* ‘to leave’, *parvenir* ‘to arrive’, *provenir* ‘to come (from)’, *rester* ‘to stay’, *survenir* ‘to arise’, *venir* ‘to come’) (Abeillé and Godard 2021: III-2).

Therefore, a sequence of *être* + participle can be part of three different syntactic structures: compound tenses (as in 11), passive constructions (12) and copulative structures (13).

- (11) French
Paul est parti en voyage
‘Paul has gone on a trip’
- (12) Le rôle sera proposé à Paul
‘The role will be offered to Paul’
- (13) Les vacances sont finies et Pierre est de retour au travail
‘Holidays are over [finished] and Pierre is back to work’

Ambiguity between passive-*être* and tense auxiliary-*être* is theoretically possible but very infrequent, because of the restrictions of *être* as a compound tense auxiliary. *Être*-passive constructions generally require transitive verbs, as in Spanish.

These verbs, as well as passive constructions with *être*, take *avoir* as a compound tense auxiliary:

- (14) French
Le poisson a toujours été détesté par les enfants
'Fish has always been hated by children'
- (15) La nouvelle a été annoncée aujourd'hui
'The news was announced [has been announced] today'

However, unlike in Spanish and Portuguese, *être*-passive constructions in French extend to some intransitive verbs (RAE/ASALE 2009: 3039). Intransitive verbs are sometimes used for impersonal passives, as in (16):

- (16) French
En deux mois, il aura été voté quatre fois contre un projet gouvernemental
'In two months, it will have been voted four times against a governmental project'

The difference between passive vs. result constructions is not expressed in French by means of a contrast in the verb. Atelic participles in passive constructions will necessarily be interpreted as focusing eventualities (17), while the participle of change of state verbs may contextually be understood as alternatively expressing an event or a result (18). Out of context, the latter sentence may refer to the event itself or to its result state. In many cases, however, the discourse environment or an array of relevant contextual assumptions and expectations will highlight one interpretation and rule out the other.

- (17) French
Le poisson est détesté par de nombreux enfants
'Fish is hated by many children'
- (18) French
La nouvelle est annoncée
'The news has been announced'

The contrast between the eventive interpretation of (17) and the ambiguity of (18) is manifested in the strangeness that (17) would produce without the mention of the agent, whereas in (18) the mention of the agent would be expected in an eventive interpretation, but not in a resultative one (for example, in saying: *La nouvelle a été annoncée. Il faut maintenant respecter les délais de lancement du produit* 'The news has been announced. Now we have to meet the product launch deadlines').

The fact that French has only one copula implies that, unlike in Spanish and Portuguese, the discourse environment plays a much more important role in French than in Spanish and Portuguese, in the distinction between eventive and resultative constructions with participles. In this respect, it is important to clarify that our analysis of the interpretation of this distinction as a phenomenon at the semantic-syntax interface refers specifically to Spanish and Portuguese, but not to French (where the semantics-syntax-pragmatics interface is at play). This implies that, comparing French

L1 and Portuguese L1 speakers, their starting point for acquiring the *ser* / *estar* + participle distinction is clearly different.

2.3. Copula + IL-adjectives in Spanish

Several studies have pointed out that the difference between *ser* and *estar* is basically connected to aspect (e.g., Fernández-Leborans 1995; Schmitt, Holtheuer and Miller 2004; Gallego and Uriagereka 2009; Arche 2012; Perpiñán, Marín and Moreno 2019). Following the distinction established by Carlson (1977) and Diesing (1992), the *ser* / *estar* alternation with adjectival predicates in Spanish has often been described as linked to the contrast between individual-level (IL) and stage-level (SL) predicates, as in (19) and (20):

- | | | |
|------|--|-----------------|
| | Stage-level predicates | |
| (19) | María está / #es cansada. 'María is tired' | Sp: ✓ESTAR/*SER |
| (20) | a. Juan #está / es carnívoro 'Juan is carnivorous' | Sp: *ESTAR/✓SER |
| | b. Hoy Juan está / #es carnívoro Sp: ✓ESTAR/*(in the intended meaning) SER 'Today Juan is carnivorous.' [Today Juan is being a carnivore.] | |

In this line of thought, Camacho (2012) claims that *estar* has an inchoative aspectual feature [+delimited] which encodes the initial boundary of a situation and agrees in this feature with its arguments (subject and attribute). Therefore, the copula *estar* correlates with [+bounded] interpretations, while *ser* is often associated with a [-bounded] feature, but is in fact compatible with any aspectual feature, bounded or unbounded (unmarked interpretation). This idea has also been discussed by Silvagni (2018) and Escandell-Vidal (2018), among other authors.

In Spanish, attributive adjectives that have a classifying function are naturally compatible with *ser*, while descriptive adjectives admit *ser* and *estar*. Most unbounded adjectives can be contextually modulated to yield bounded interpretations, and therefore they can be used not only with *ser*, but also with *estar*. However, depending on the type of adjectives, their combination with *estar* produces specific interpretations (Gumiel-Molina, Moreno-Quibén and Pérez-Jiménez 2021). For example, adjectives of shape (such as 'round' or 'square'), when combined with *estar*, will be seen as expressing the result of a manipulation; adjectives expressing attitudes and predisposition (such as *inteligente* 'smart' or *cauto* 'cautious') used with *estar* will be interpreted as denoting behaviour on specific occasions. Finally, adjectives expressing properties of events (as in *La fiesta está divertida*) will admit *estar* only if those properties are interpretable as a subjective evaluation of the speaker. These effects have been analysed as the result of aspectual coercion (Escandell-Vidal 2018): the semantic features of these adjectives make them compatible with *ser* only; interpreting them with *estar* leads to contextual adjustments which, in these cases, lead to the inference that the speaker presents a directly perceived event.

Escandell-Vidal's (2018) analysis is based on the idea that the combination of *ser* and *estar* with IL and SL predicates is not subject to one monolithic principle of

grammatical selection: it is the result of a complex network of grammatical features, between which there may be semantic affinities or mismatches. A key notion is that of presupposition accommodation. *Estar* presupposes a spatiotemporally restricted situation and SL predicates contain a position for a spatiotemporal argument, so the features of the copula and those of the adjectival predicate match. Similarly, when *ser* is combined with an IL predicate, the semantic properties of the two elements match. Crucially, when the presupposed assumptions cannot be satisfied in the available context, an accommodation process takes place: the presupposed spatiotemporal restriction is added inferentially in order to proceed with the interpretation. Thus, the semantic restrictions of *estar*, to identify the classification or categorisation denoted by the adjective as temporally delimited, cannot be satisfied locally with IL predicates, and this leads to an inferential search for another way to fulfil this feature of *estar*. The regular solution is to infer that the speaker bases the predication on direct experience.

When the initially contradictory features of the inchoative aspect of *estar* clash with the unbounded feature of IL predicates, the combination of mismatching features leads to extra processing effort. Following the principle of relevance, interpreting this kind of mismatching-feature combinations requires an inferential search for contextual assumptions that allow for conciliation between the contrasting features. The result is that the attributive relation itself (Brucart 2012) is understood as externally bounded; because *estar* encodes a presupposition that it expresses a spatio-temporally anchored predication, its combination with unbounded adjectives requires – inferentially – identifying an implication that the predication is bounded by the speaker's direct experience. In the case of adjectives expressing properties which are not perceptible, the experiential inference imposes an interpretation that the speaker attributes the property to the subject based on observable or perceivable behaviour; in other words, that it offers perceivable evidence that it possesses the property (Escandell-Vidal 2018: 86).

Therefore, we are not dealing here with a semantic feature inherent to a certain type of adjective or to the copulas, but with a general mechanism that is activated to solve an interpretative conflict arising from specific syntax-semantics combinations. The way in which such a mechanism operates, as well as its outcome, is systematic and always leads to the same kind of interpretative result; however, the mechanism itself is not properly linguistic, but cognitive (i.e. pragmatic).

The frequency and extension of *estar*-coerced ILPs is not equivalent across all geolectal varieties (it is more frequent in American Spanish varieties than in the standard European one, see Gumiel-Molina, Moreno-Quibén and Pérez-Jiménez 2024 and the references therein). However, a characteristic that is shared by all varieties is that the ILPs that most clearly favour the combination with *estar* are those expressing physical appearance, moral characteristics or perception, along with age. Indeed, deciding to describe a problem as 'difficult' or a person as 'beautiful' depends, to a large extent, on the experience and subjective perception of the speaker (Escandell-Vidal 2018). In this article, we also assume that a difference between ILP/SLP along the lines described by Escandell-Vidal (2018) and Silvagni (2018) underlies the *ser/estar* contrast in Spanish. However, since our main purpose is to present and analyse a set of L2 data referring only to the verb *estar*, we will not mention this fact again.

2.4. Copula + IL-adjectives in Portuguese

In Portuguese, the two copulas, *ser* and *estar*, are, by and large, very similar in their properties to the corresponding Spanish ones. The distinction in Portuguese may also be analysed as corresponding to IL (with *ser*) versus SL (*estar*) predicates. Most adjectives in this language can be used with both copulas, although some are only used with one of the two.

- (21) a. Portuguese
 O Joao [está / é] muito feo
 b. Spanish
 Joao [está / es] muy feo.
 ‘Joao is very ugly.’

The distribution of *ser* and *estar* with relational adjectives is, in general terms, analogous in Spanish and Portuguese. Unbounded descriptive adjectives can be coerced (i.e., used with bounded interpretations in certain contexts) in Portuguese, like in Spanish, with similar effects. However, several descriptive adjectives requiring *ser* in Spanish are naturally used with *estar* in Portuguese (García Méndez 2006).

- (22) a. Portuguese
 Está experto; está inocente; aquí está impossível falar; o que procuro é uma prova de que o meu pai esteve consciente da minha existência.
 b. Spanish
 Es experto; es inocente; aquí es imposible hablar; lo que quiero es una prueba de que mi padre era consciente de mi existencia.
 S/He is expert; he is innocent; it is impossible to speak here; what I want is proof that my father was aware of my existence.

This seems to suggest that the SL versus IL distinction may not apply equally in the description of Portuguese versus Spanish copulas. For instance, some of the interpretive nuances that are conveyed in Spanish by choosing *estar* over *ser* with adjectives as SL predicates do not obtain using the same grammatical resource: one such case is the expression of a bounded situation, indicated by certain time adverbials, as in the Portuguese example (23) (from Cunha and Cintra 2005), which tends to lead to preference for *estar* in Spanish but not Portuguese.

- (23) a. Portuguese
 O Pedro pediu ajuda. A Maria foi simpática e emprestou-lhe dinheiro.
 Pedro ask_{Perf} help. Maria *SER*_{Perf} nice and lend_{Perf} him money
 b. Spanish
 Pedro pidió ayuda. María (#fue) estuvo simpática y le prestó dinero.
 ‘Pedro asked for help. Maria was nice and lent to him some money.’

In Cunha and Cintra’s (2005) analysis, this is a case of coercion, where a stative behaves like an event, incorporating a [+dynamic] feature; that is, it denotes a process. This leads to a preference for *estar* in Spanish but not Portuguese.

2.5. Copula + IL-adjectives in French

In present-day French, a single copular verb, *être*, is found. However, *être* has a morphologically composite nature: while most of its forms evolved from the Latin verb *esse* (*estre* in medieval French), the past participle *été*, the gerund *étant* and all the forms of the imperfect indicative come from the Latin verb *stare* (*ester* in medieval French) (Vega y Vega 2011). Thus, whether SL or IL adjectival predicates are used, there is no semantic distinction in the French copula, which will in all cases be *être*, but the morphology of the French verb will in some cases be closer to the forms of Spanish *estar* than to those of *ser*.

- (24) French
José est fatigué.
'José is tired.'
- (25) Jean est très moche.
'Jean is very ugly.'
- (26) Ce que je veux c'est la preuve que mon père a été au courant de mon existence.
(Sp. SER: ha sido / ESTAR: ha estado)
'What I want is proof that my father was [has been] aware of my existence.'
- (27) Il était interdit de fumer à l'intérieur. (Sp. SER: era / ESTAR: estaba)
'Smoking indoors was forbidden.'

Some of the interpretive distinctions that copula choice in Spanish leads to are expressed in French by means of verb tense choice (perfect vs. imperfect) (Leonetti and Escribano, 2018), while others are not differentiated by grammatical means, but using adverbials or by specific lexical choices.

- (28) a. Spanish
La fiesta estuvo (PERF) genial. Lo pasamos muy bien.
b. French
La fête était (IMP) superbe. On s'est bien amusé. (Fr)
'The party was great. We really enjoyed it.'
- (29) a. Spanish
María es muy guapa.
b. French
Marie est très jolie.
'Mary is very beautiful.'
- (30) a. Spanish
Con este vestido, María está guapísima.
b. French
Dans cette robe, Marie est ravissante.
'In this dress, Mary looks gorgeous.'

2.6. Two types of interface phenomena

From the information introduced in the previous sections, we conclude that the choice between *ser* and *estar* in Spanish, in the two types of constructions analysed here, rests on interface information, but it has a partially different nature in each case.

In identifying both structures, syntax is central. Beyond syntax, the semantic features of *ser* and *estar*, respectively, impose conditions that must be met in the interpretation process (Escandell-Vidal, 2018): however, while the combinatory possibilities of *ser* with participles are very broad, the feature [+delimited] of the verb *estar* only makes it compatible with bounded participles that express a change of state.

A participle used as a verb form has a rigid semantics, related to its grammatical (and therefore procedural) nature. Participles carry a [+perfective] feature; consequently, any event incorporating participial morphology will contextually be seen as bounded. Atelic verbs have no endpoints, and the participial morphology can only focus on the event itself. Conversely, telic verbs are lexically finite and allow focalization on the event or on the subsequent result state. The [+delimited] feature of *estar* is more naturally compatible with the inherent [+inchoative] feature of result states. Thus, the use of one or the other copula in participial constructions allowing *ser* / *estar* alternation leads to the recognition of a specific syntactic structure (passive vs. resultative), and therefore to the identification of a focus on the event (with *ser*) or on a resulting state (with *estar*). Hence, the association of *estar* with participles is restricted to a group of verbs.

In contrast with the procedural semantics of the participial morphology, the conceptual semantics of adjectives is much more flexible. This is manifested in the relative ease with which the association of *estar* with IL-adjectives, not compatible with the feature [+delimited], is resolved through aspectual coercion. Coercion is a semantically based phenomenon, but its results in the interpretation process are related to the perspective of the speaker. Nevertheless, the interpretative results of coercion vary in each case depending on the semantics of the adjective, and also on the semantics of the noun on which the predication falls. The hearer takes syntax and semantics as starting points, together with world knowledge and contextual hypotheses; guided by a presumption of optimal relevance, inference processes result in specific cognitive effects. Some examples are given below:

- (31) La madre de Marta está muy joven
‘Marta’s mother is [*estar*] very young’
- (32) La fiesta está estupenda
‘The party is [*estar*] great’
- (33) Pablo está muy serio
‘Pablo is [*estar*] very serious’
- (34) La paella está deliciosa
‘The paella is [*estar*] delicious’

In utterance (31), the adjective *joven* ‘young’ refers to a socioculturally relevant class of individuals and is, therefore, conceived as an IL-predication. Thus, in (31), the coercion of the adjective does not modify the lexical meaning of *young*, but

adds pragmatic information to it: being young is not seen as an objective fact, but as the fruit of a subjective appreciation of the speaker: Marta's mother is not really young but appears to be so.

In (32), the interpretive effect of coercion is analogous to that of (31): the evaluation of *la fiesta* 'the party' with *estar* provides information about the origin of the evaluation, which is the speaker's personal experience.

In (33), the effect is different because of the semantics of the adjective: *serio* 'serious' can refer to a class of individuals or to a behaviour on a particular occasion; the copula *estar* leads the interpretation towards the latter route, because exhibiting a behaviour is clearly compatible with [+delimited] feature of the verb.

Finally, in (34), the use of *estar* has two interpretative consequences: firstly, we understand that the speaker is talking about a specific example of the dish *paella*, and not the generic class of that dish (such denotation of the singular form is possible with the definite article in Spanish); secondly, we infer that the evaluation is the result of the speaker's tasting experience. Notice that, in (18), unlike (20), the copula *estar* is not needed to disambiguate the reference to the noun *fiesta*, since its semantics does not allow a generic interpretation of the singular.

In short, the alternation *ser/estar* + participle in Spanish (and also in Portuguese) primarily involves syntax and pragmatics, whereas *ser/estar* + adjective-IL relates to the syntax-semantics-pragmatics interface. This suggests that the challenge of each structure for the learners of Spanish as an additional language might not be the same. Besides, the fact that French and Portuguese have dissimilar copular systems must also be considered: being a monocopular language, French (unlike Portuguese and Spanish) cannot employ copula alternation to express the contrast between eventive vs. resultative interpretations or between IL vs. SL predications. These facts can be expected to have clear consequences in the acquisition L2 Spanish. In the following sections we explore these ideas.

3. The acquisition of copular verbs in Spanish

The majority of studies on the acquisition of copular verbs has focused on the lack of equivalence between English and Spanish to study the linguistic dichotomy found between *ser* and *estar* (Geeslin 2014; Perpiñan, Marín and Moreno 2019 and references therein); however, other language combinations still need to be studied in detail, which is at the heart of the present paper. Past research on the acquisition of Spanish copula choice has confirmed that this is a grammatical phenomenon connected with a multifaceted acquisition process that represents a great difficulty for L2 Spanish speakers, even those with advanced levels (Guijarro-Fuentes, Amenós-Pons and Ahern 2023 and references therein).

As described in the previous sections, linguistic context identification is an integral part to select *ser* or *estar* and, in many instances, L2 speakers may not be aware of the semantic and pragmatic nuances that are required to identify those contexts successfully. Research on the selection of the Spanish copula is vast as far as SLA field is concerned.³ Without being our intention to be too exhaustive, past studies

³ Space limitations prevent us to review research done on the acquisition of copula verbs in other language scenarios by other populations including children and adult bilingual and

in L2 Spanish have comprised different profiles of learners at various levels of competence, from studies focused on intermediate and higher levels (Guijarro-Fuentes, Ahern and Amenós-Pons 2020; Bruhn de Garavito and Valenzuela 2006, 2008; Geeslin 2003 and references thereafter) to those considering ultimate attainment (Guijarro-Fuentes, Ahern and Amenós-Pons 2020). Empirical support from most of that research has revealed that L2 learners of Spanish do not attain native-like competence in copula selection. This in turn may suggest that there are differences in the capacity to apply semantic and pragmatic constraints in non-native grammars (Guijarro-Fuentes, Ahern and Amenós-Pons 2020). Even when the distinction between *ser/estar* seems to be well established, L2 speakers seem to have difficulties related to the discrimination of the associated interpretive properties that are needed for the copula selection process (Bruhn de Garavito and Valenzuela, 2006, 2008).

However, there is not unanimity as to whether the mother tongue of the learners impinges on the acquisition of copula choice in Spanish as an additional language. For instance, Bruhn de Garavito (2009) found a facilitating effect of L1 speakers of German versus L1 speakers of English in the distinction between eventive and stative passive constructions, but she did not detect an effect of the L1 on copula selection in L2 Spanish. Nonetheless, more recent works such as (Guijarro-Fuentes, Amenós-Pons and Ahern 2023) showed evidence of a transfer effect. In that study, the acquisition of the construction *estar* + adjective in the L2 Spanish grammar of French and Portuguese L1 speakers was measured. Based on data extracted from a learner corpus, results revealed that L1 Portuguese learners clearly outperformed L1 French learners. The difficulties experienced by L1 French speakers are understood as a consequence of the feature assembly task (Lardiere, 2009) that these speakers need to face. These findings are especially relevant for the purpose of our current work as the present study delves deeper into the Spanish copula selection in similar, but different type of linguistic constructions that represent two types of interface phenomena as shown in previous sections.

4. Methodology

4.1. Research aims, questions and hypotheses

The aim of the present study is to analyse the competence of L2 Spanish of L1 French and Portuguese speakers respectively, exploring the relative difficulty of acquiring properties that determine a distinction in the grammaticality of *ser/estar* with past participles, where the semantics-syntax interface is at play, as opposed to with individual-level predicates, where the verb selection requires processing at the syntax-semantics-pragmatics interface. Following the findings of some of the empirical studies aforementioned, we focus on two specific phenomena: crosslinguistic influence with two types of constructions which ultimately represent two multifaceted interface linguistic phenomena and dissimilarities between populations with diverse L1s. Thus, our main research questions are as follows:

heritage speakers. Interested readers are referred to Mañas-Navarrete, Guijarro-Fuentes and Bello Viruega (2023) and references therein.

- (i) Which of the two (syntax/semantics vs. syntax/semantics/pragmatics) interfaces represent a bigger challenge for our L2 speakers, and why?
- (ii) Considering the properties of the two L1s of our L2 speakers, is there any noticeable interlinguistic transfer effect, based on the distinction of *ser/estar* with past participles and of individual-level predicates, among French and Portuguese speakers of L2 Spanish?
- (iii) Do L1 speakers of Spanish apply the restrictions on aspectual coercion uniformly, or is there variability? What are the implications for the concept of ‘native competence’?

Regarding the syntax/semantics interface (when choosing *ser* / *estar* with participle), we had the following expectations:

1. L1 Spanish speakers will be sensitive to the [\pm telic] [\pm change of state] semantic features restricting the combinations of *estar* + participle.
2. Variability is not expected among the choice of the L1 Spanish speakers, since the regulation of the possible combinations is a purely linguistic fact (at the syntax/semantics interface), not dependant on individual choices.
3. L1 French speakers will show variability in L2 Spanish, as French lacks the possibility of contrasting two auxiliary verbs with participles. They will tend to prefer *ser* as a default copula.
4. L1 Portuguese speakers will be sensitive to semantic features restricting combinations of *estar* + participle. However, there may be some variability, related to the fact that they are performing tasks in an L2.
5. For both L2 groups, the internal interface issue (syntax/semantics) is expected to be less complex than the external interface issue (syntax/semantics/pragmatics).

Concerning the syntax/semantics/pragmatics interface (in the choice of *ser/estar* with IL-adjective), our expectations were as follows:

1. L1 Spanish speakers will accept the use of *ser* with any IL-adjective. However, they will tend to accept *estar* if discursive-contextual conditions favour it: recognition of the feature [+personal experience] will be a key factor in that acceptance.
2. Since the recognition of the [+personal experience] feature largely depends on the accessibility of an appropriate cognitive context, we expect some degree of variability among the L1 Spanish speakers when judging the acceptability of *estar* + IL-adjectives.
3. L1 French speakers will show greater variability in L2 Spanish, as there is no alternation of copula in French. They will tend to prefer *ser* as a default copula.
4. L1 Portuguese speakers will accept coercion in L2 Spanish (*estar* + IL-adjective), aligning themselves with L1 Spanish speakers. However, an overextension of *estar* may be found in the data, since compared to Spanish, Portuguese allows the use of *estar* with a larger number of adjectives.
5. For both L2 groups, the external interface issue (syntax/semantics/pragmatics) is expected to be more complex than the internal interface issue (syntax/semantics).

4.2. Participants and linguistic materials

The participants in this study included 30 L1 Portuguese speakers and 46 L1 French speakers learning Spanish at CEFR B2 and C1 levels, as well as a control group of 48 L1 Peninsular Spanish speakers. The native Spanish speakers were all monolingual university students from central Spain (Madrid area). The L2 participants were Portuguese and French monolingual adults, learning Spanish at universities in Portugal (Lisbon), French-speaking Belgium (Louvain-la-Neuve) and France (Perpignan), or at the Instituto Cervantes Centre in Paris, France. Their proficiency level in Spanish was attested on the basis of the descriptors of the *Plan Curricular del Instituto Cervantes/Niveles de Referencia para el Español* (Instituto Cervantes, 2006). None of the L1 Portuguese and French participants reported knowledge of other languages that have a two-copula system similar to Spanish.

According to the specifications of the above-mentioned *Plan Curricular del Instituto Cervantes*, the types of *ser* / *estar* uses included in this research appear at level B2, and they are object of progressive deepening in C1 and C2. This is why the level of the L2 participants could not be lower than B2.

The study included two different tasks (henceforth *task 1* and *task 2*), with a total of 58 multiple choice items. The structure of the two tasks was as follows.

- Task 1 (32 items): The participants were requested to choose between *ser* and *estar* in two types of constructions: Copula choice with IL-adjectives (evidential vs. non-evidential environments) (12 items); and copula choice in passive vs. resultative constructions (14 items). This task also included 6 fillers unrelated to the structures being tested.
- Task 2 (20 items): The participants were asked about the acceptability of a series of items, and also about their interpretation⁴. A set of items probed the acceptability of *estar* + coerced IL-adjectives (6 items) and the relation of those items with direct evidentiality (6 items); a different set of items focused on the acceptability of *ser* + *participle* to express passivity (4 items) and *estar* + *participle* in resultative constructions (4 items); additionally, 12 filler items⁵ were included.

Examples of the different item types are given in Figures 1 to 8 below. The first group of items (Figure 1) introduces an IL-adjective in an environment where the expected copula is *está*, since the context (provided in brackets) states that the speaker Pedro is at the party (*la fiesta*) when he communicates his evaluation of it (*muy divertida* ‘great fun’). The acceptance of those items is contrasted with the acceptance of the same IL-adjectives with *ser*, in environment where it is manifest that the speaker has no direct experience (Figure 2).

⁴ Questions about the interpretation were only asked about the IL-adjective items, because for these items the decision to use *ser* or *estar* mainly depends on the cognitive context accessed by the participant. In contrast, copula choice with participles requires recognition of the semantic features of the participle being used.

⁵ Compared to task 1, more fillers were used in task 2. This is due to the fact that the latter task included two different types of items (one set of acceptability judgements items and another one focusing on interpretation), each of them with its own type of fillers.

The second group of items (illustrated in Figures 3 and 4) include eventive passive constructions, with an explicit agent introduced by the preposition *por* ‘by’, contrasted with items containing resultative constructions with no agent.

For a third group of items (Figure 5), the participants are requested (with no contextual cues provided) to decide if an utterance containing *estar* + IL-adjective (*La última película de Pedro Almodóvar está genial* ‘Pedro Almodóvar’s latest film is [está] great’) may be accepted. Three possibilities are envisaged: (a) *Me suena bien* ‘It sounds good to me’; (b) *No me suena bien* ‘It does not sound right’; (c) *No estoy seguro* ‘I’m not sure’). In order to limit the length of the task, only acceptability judgements referring to grammatically possible (but pragmatically marked) items were requested. This decision was taken in the light of previous research (Guijarro-Fuentes, Amenós-Pons and Ahern 2023), which found a particularly high variability in the productions of this type of combinations by L1 French learners.

Item group 4 (Figure 6) enquires about the situation where the same utterance shown in Figure 5 could be used (the answer options are: (a) *La persona que habla ha visto la película* ‘The speaker has seen the film’; (b) *La persona no ha visto la película pero le han hablado de ella* ‘The person has not seen the film but has been told about it’ and (c) *Los dos contextos son igualmente posibles* ‘The two contexts are equally possible’).

Finally, item group 5 (Figures 7 and 8) tests the acceptability of *ser* + participle in passive sentences and that of *estar* + participle in resultative sentences.

Figure 1. Task 1: *ser* / *estar* + IL-adjective (expected answer: *Estar*)

(Pedro está en la fiesta de cumpleaños de Luisa; hablando con un amigo por teléfono, se lo está contando) La fiesta _____ muy divertida. Lo estamos pasando genial.

- ☐ es
- ☐ está

Figure 2. Task 1: *ser* / *estar* + IL adjective (expected answer: *Ser*)

(Pedro no puede ir al cumpleaños de Luisa, pero recomienda a otras personas que vayan si pueden) La fiestas de Luisa siempre _____ muy divertidas. Todos lo pasan genial.

- ☐ son
- ☐ están

Figure 3. Task 1: *ser* / *estar* + participle (expected answer: *Ser*)

(Pedro comenta con un compañero de trabajo una noticia del periódico) El camión _____ averiado deliberadamente por los trabajadores para protestar por las condiciones laborales.

- ☐ fue
- ☐ estuvo

Figure 4. Task 1: *ser / estar* + participle (expected answer: *Estar*)

(Pedro comenta con un compañero de trabajo una noticia del periódico) El camión _____ averiado un tiempo en el garaje, hasta que recibieron la pieza que necesitaban.

- ☐ fue
- ☐ estuvo

Figure 5. Task 2: acceptability judgement (expected answer: *Sí, me suena bien* ‘Yes, it sounds good to me’)

¿Le suena bien el verbo ESTAR en esta frase? La última película de Pedro Almodóvar *ESTÁ* genial.

- ☐ Sí, me suena bien.
- ☐ No, no me suena bien.
- ☐ No estoy seguro.

Figure 6. Task 2: type of interpretation (expected answer: *La persona que habla ha visto la película* ‘The speaker has seen the film’)

¿En qué contexto se podría usar esta frase? La última película de Pedro Almodóvar *ESTÁ* genial.

- ☐ La persona que habla ha visto la película.
- ☐ La persona no ha visto la película, pero le han hablado de ella.
- ☐ Los dos contextos son igualmente posibles para esta frase.

Figure 7. Task 2: acceptability judgement (expected answer: *Sí, me suena bien* ‘Yes, it sounds good to me’)

¿Le suena bien el verbo SER en esta frase? En este momento, la casa del cliente *ES* pintada por un equipo de tres personas, asesoradas por un decorador.

- ☐ Sí, me suena bien.
- ☐ No, no me suena bien.
- ☐ No estoy seguro.

Figure 8. Task 2: acceptability judgement (expected answer: Sí, me suena bien ‘Yes, it sounds good to me’)

¿Le suena bien el verbo ESTAR en esta frase? La casa **ESTÁ** pintada de color amarillo, muy fuerte. No me gusta.

- ☐ Sí, me suena bien.
- ☐ No, no me suena bien.
- ☐ No estoy seguro.

4.3. Procedure and analysis

All participants took part in the experiment voluntarily. For logistical reasons, some of them completed the tasks from home using Google Forms, while others completed it in pencil and paper format in the classroom, in the presence of one of the researchers. The informants were encouraged to answer spontaneously, without stopping to think about each answer. There was no time limitation, but they were instructed to self-report the time spent on the tasks. However, since there is no guarantee (especially for those taking the test at home) that the self-reported time measure was accurate, we will not include it in our analyses.

Statistical tests were carried out on the data obtained from the questionnaires, for the group results, based on the variables generated as the mean of each of the items. The variables were shown to deviate from the normal distribution, so each group was analysed descriptively for its mean, minimum and maximum, and the groups were compared with each other using Mann-Whitney (comparing two groups or the two proficiency levels of a group) or Wilcoxon (comparing two item conditions).

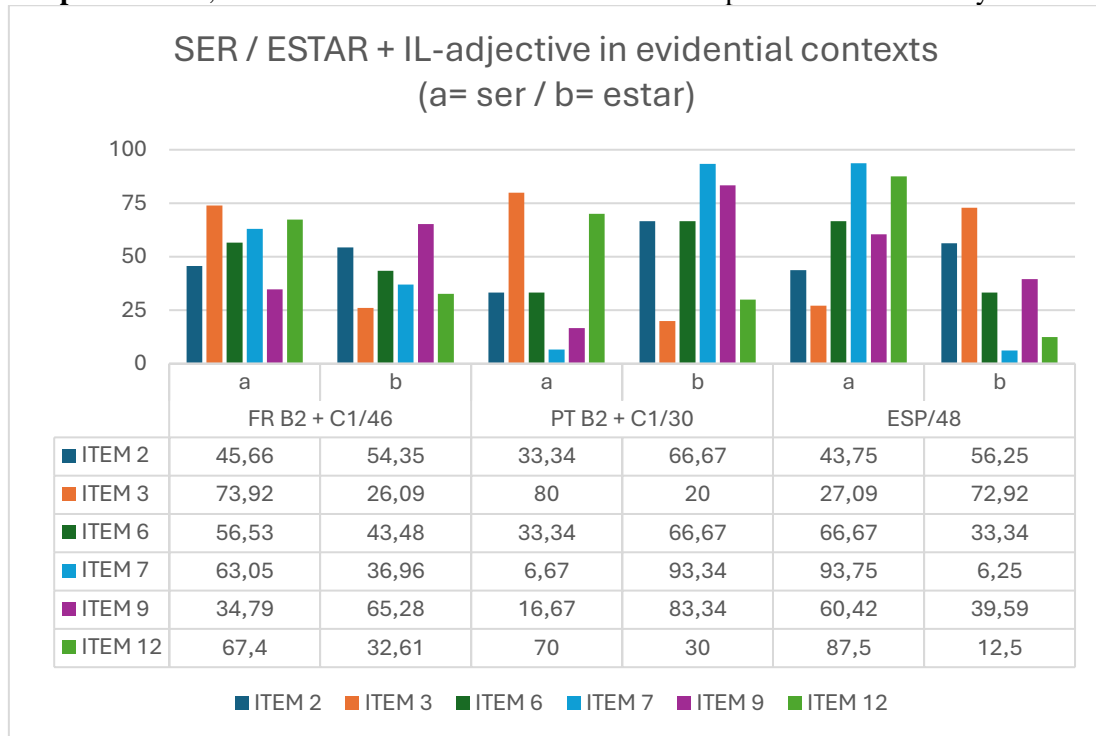
4.4. Results and discussion

In each task, the answers of the three L1 groups (Portuguese, French and Spanish) were compared. In the case of the L2 Spanish learner groups, the results from the B2 and the C1 proficiency groups were analyzed separately and compared to the control group results, and to each other, in order to ascertain: (a) if there are significant differences related to L1; (b) if there are significant differences related to L2 proficiency and (3) if there are significant differences between the L2 Spanish learners and the L1 Spanish group. The results from Task 1 are represented below, in Graphs 1 to 3. The results from Task 2 will be introduced later on, in Graphs 4 to 8.

Turning to the tasks and results, we will briefly sum up what each task consisted of and show the results in terms of participant responses. As explained in section 4.3, part of Task 1 was designed to explore whether, in evaluative constructions with adjectives expressing unbounded properties, participants tended to prefer *estar* rather than *ser* in cases where the evaluation was shown to be based on the speaker’s direct experience. In this task, two items expressed evaluations of places (item 2, *precioso*, ‘lovely’; and item 12: *estupendo*, ‘amazing’); three items expressed evaluations of events (item 3, *genial* ‘great’; item 6, *divertido* ‘fun’; item 9, *perfecto* ‘perfect’); one item expressed an evaluation of weather (item 7, *bueno* ‘good’).

In Graph 1, the participants' results are shown, with each bar showing the response choice by item. The patterns of choice of *estar* by the L1 Spanish participants contrasts starkly with the choice by the two learner groups. Most of the L1 Spanish group chose *estar* in items 2 (56.25%, evaluation of a place) and 3 (72.92%, evaluation of event). A high percentage (but not a majority) of the L1 Spanish informants also chose *estar* in items 6 and 9 (evaluation of places, 33.34% and 39.59%, respectively). In the other items, *ser* was the main choice.⁶

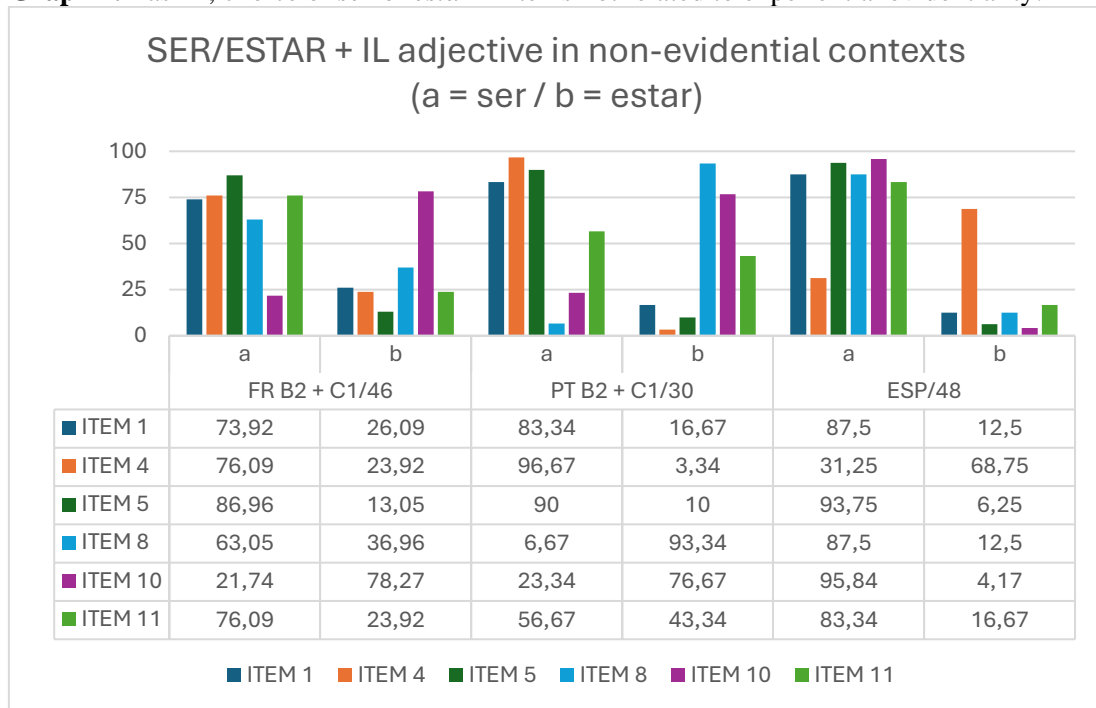
Graph 1. Task 1, choice of *ser* or *estar* in items related to experiential evidentiality



In these item results, no correlation was found between the L2 learner groups' choices and their proficiency level in Spanish, so the L2 data in Graph 1 are not separated by proficiency levels. The Portuguese group chose *estar* more often than the Spanish control group: the majority of informants used *estar* in items 2 (66.67%, evaluation of a place), 7 (93.34%, weather), 6 and 9 (66.67% and 83.34%, events). The percentage was lower, but still noticeable, in items 3 (20% event) and 12 (30% place). Finally, in the L1 French group, *estar* was dominant only in items 2 (54.35%, place) and 9 (65.28%, event); it was also chosen quite often for item 6 (43.48%, event) and 12 (32.61%, place). The difference in the general tendencies found in each group was statistically significant in all cases ($p \leq 0.05$).

The *ser* vs. *estar* choices in non-evidential contexts in the same task are represented below, in Graph 2:

⁶ It is important to keep in mind that both *ser* and *estar* are grammatically possible in all those items. *Ser* is an unmarked option, since the adjectives are IL-predicates. Choosing *estar*, on the other hand, implies accessing a cognitive context where the speaker's personal experience is considered relevant. Therefore, the fact of choosing one verb or the other is mainly related to the type of context considered by the participants when doing the task.

Graph 2. Task 1, choice of *ser* or *estar* in items not related to experiential evidentiality.

Graph 2 shows that, for the L1 Spanish speakers, non-evidential contexts substantially increased the overall preference *ser* over *estar*⁷. This tendency was also seen in the L1 Portuguese group, although for some of the items only (items 1, 4 and 5). Finally, for the L1 French group, the contrast between evidential vs. non evidential contexts did not parallel with different answer patterns: a significant increase in the choice of *ser* in that group (compared to evidential contexts) is only seen in one of the items (73.92% of the participants chose *ser* in item 1, while only 45.66% did the same chose in item 2, which is the evidential counterpart of item 1).

Task 1 also included items with passive sentences in which *ser* or *estar* had to be chosen, designed to explore whether participants detected the environments where a result is focalised (requiring *estar*) as opposed to the ones where a process is made prominent (requiring *ser*). All the items presented telic predicates that were amenable to use with either copula.

The expected responses were as shown in Table 1:

⁷ Nevertheless, in item 4, a noticeable preference for *estar* was detected (68.75%). The percentage of *estar* in that item is slightly lower than in the corresponding evidential context, given in item 3 (72.91%, as seen in Graph 1), but the difference is not statistically significant ($p > 0.05$). The particularity of item 4 might be due to the actual wording of the contextual cue, which may be confusing for a non-attentive reader (the cue read as follows: Luis habla con María del viaje que ha hecho otra persona, un amigo de los dos. Ni Luis ni María estuvieron en ese viaje ‘Luis is talking to María about the trip that another person, a friend of both, has made. Neither Luis nor María were on this trip’).

Table 1. Expected responses in Task 1⁸

| Item number | Expected copula choice |
|------------------------------------|------------------------|
| 13, 15, 17, 19, 21, 23, 24, 25, 26 | Ser |
| 14, 16, 18, 20, 22 | Estar |

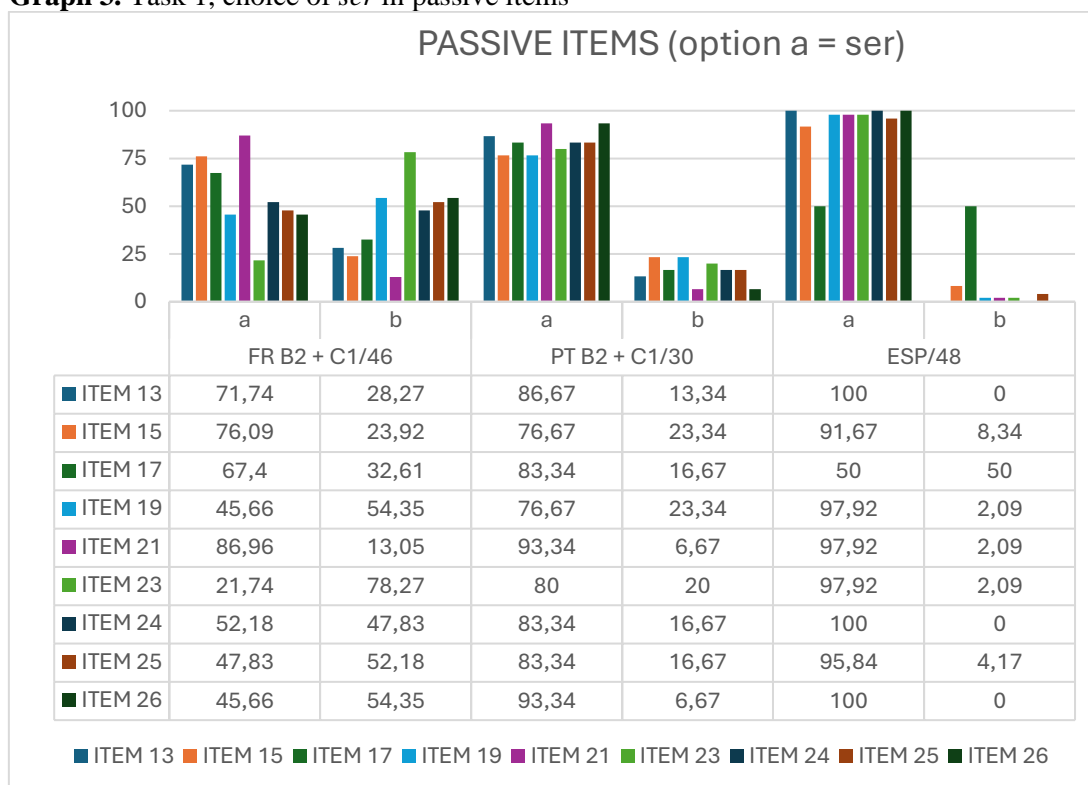
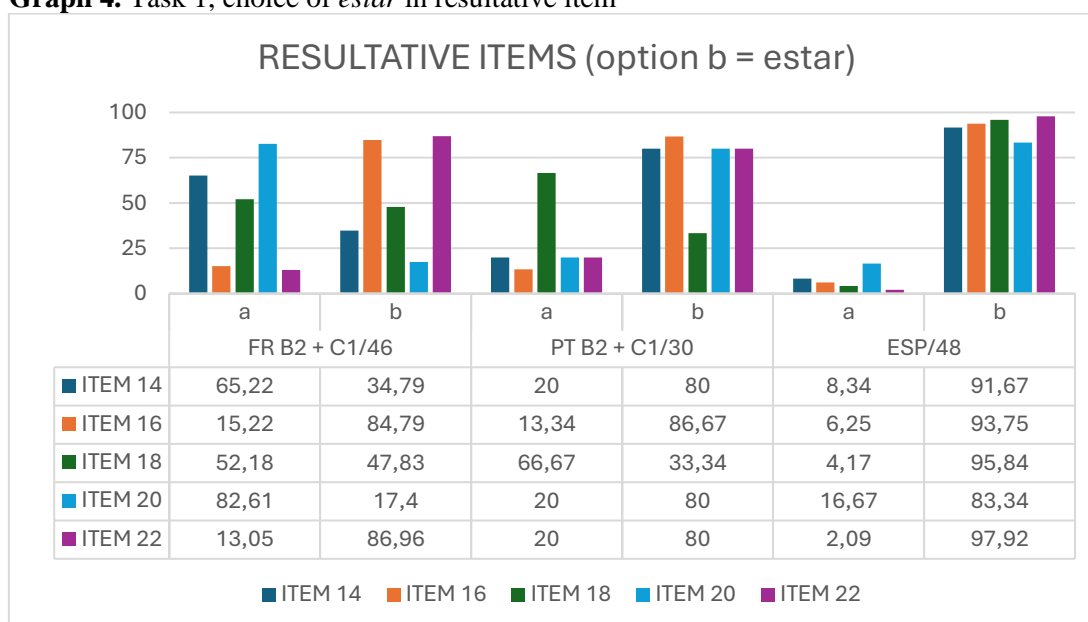
In Graph 3, the participants' responses to the items where *ser* was the expected verb choice is shown, and in Graph 4, the responses to items where *estar* was expected to be preferred. Graphs 3 and 4 show that, in the participle items, the patterns are clearly related to the L1 of the participants. As in the previous task, among the L2 participants no significant differences were correlated to their proficiency level in L2 Spanish ($p > 0.05$). Consequently, in the Graphs, the results for the B2 and C1 levels are represented as a single entity. For each item group, the answers show low variability across the L1 Portuguese and the L1 Spanish groups. The majority of the Portuguese participants choose *ser* in all the items where this was expected; the Spanish participants did the same in all the items but one (item 17), where the percentage of *ser* and *estar* choice was the same (50% each)⁹. In the resultative items, *estar* was, as expected, chosen by most of the L1 Spanish and L1 Portuguese speakers (except for item 18, where *ser* was preferred in the Portuguese group¹⁰). Overall, the percentage of *ser*-choice in the passive items (Graph 3) and *estar*-choice for the resultative items (Graph4) is slightly higher – but without reaching statistical significance ($p > 0.05$) – in the L1 Spanish group than in the L1 Portuguese group.

In the L1 French group, variability within each item group is more pervasive. In the passive items, the percentage of *ser*-choice is over 50% in all items but 19 and 23 (45.66% and 21.74%, respectively). Still, only one item (item 21, 86.96%) has a percentage of *ser*-choice similar to the two other L1 groups. In the rest of the passive items, the percentage of *ser* is significantly lower. As for the resultative items, the choice of *estar* is clearly dominant in two items (item 16 and item 22), though under 50% in the other items (items 14, 18 and 20).

⁸ Items 13 to 22 contain telic participles that can be used with *ser* (for eventive passive) and *estar* (in resultative constructions). In that group of items, each passive sentence (13, 15, 17, 19 and 21) was paralleled with a resultative one (14, 16, 18, 20 and 22). Items 24, 25 and 26 include atelic participles that cannot be used in resultative constructions.

⁹ Therefore, for the Spanish participants, item 17 is syntactically ambiguous: 50% of the informants considered it resultative and not passive. This ambiguity was not detected by the Portuguese group.

¹⁰ Syntactically, items 17 and 18 are very close to each other, even though one is passive and the other is resultative. This closeness has been problematic for the L1 Spanish and Portuguese groups, although the ambiguity has been reflected differently in each of them.

Graph 3. Task 1, choice of *ser* in passive items**Graph 4.** Task 1, choice of *estar* in resultative item

Moving on to Task 2, its purpose was to probe the participants' judgements on the acceptability of a set of utterances with copular verbs. As in the previous task, the items included adjectives expressing evaluations of places (item 35), events (items 37, 39, 41, 43) and weather (item 33), in this case presented with *estar*. Different kinds of response options were offered for different groups of items. As explained in the previous section, this task included a group of acceptability judgement items, the results of which are shown in Graph 5. Another set of items in Task 2 requested that

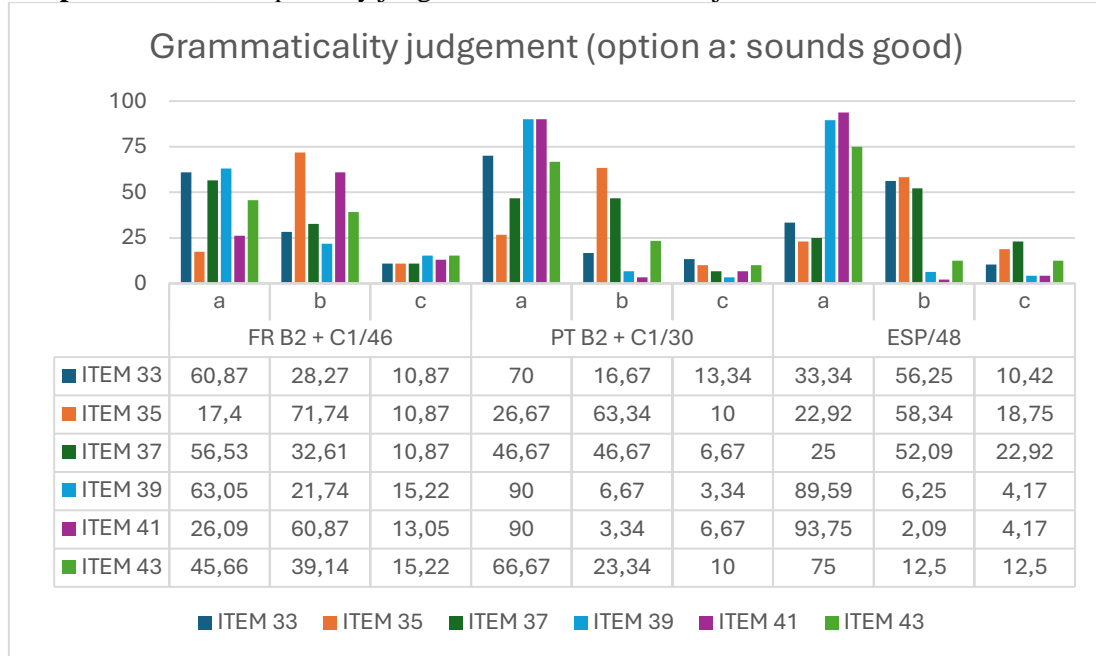
participants decide if the speaker was necessarily expressing a judgement based on their personal experience, of which the results are shown in Graph 6.

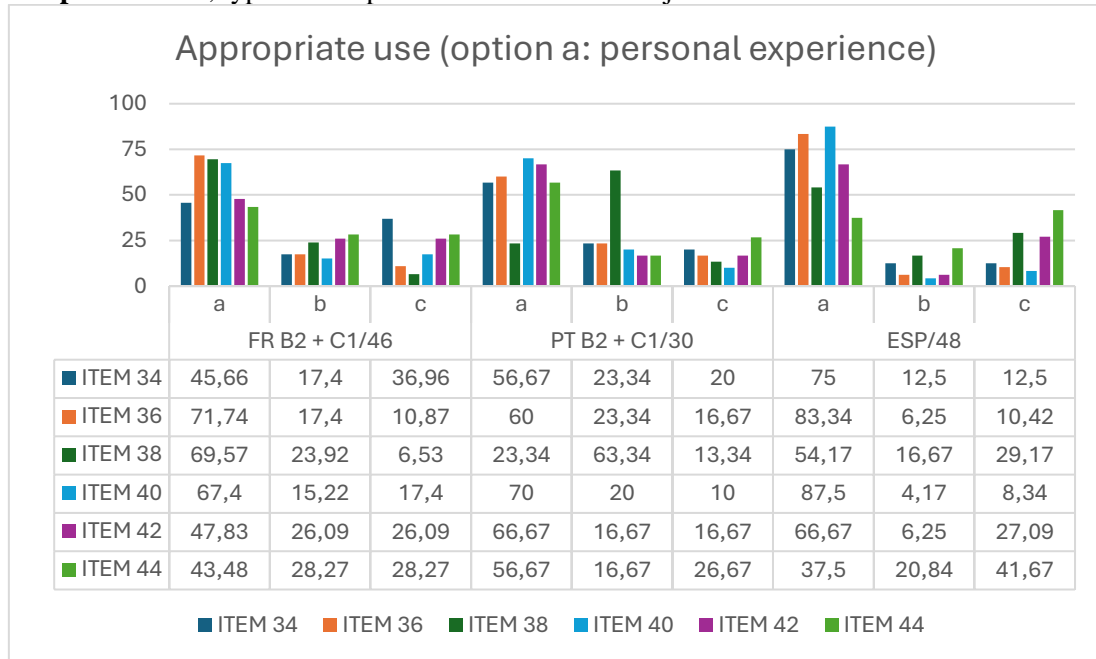
Graph 5 shows generalised variability in the acceptability judgements on the items involving IL-adjectives, across the three L1 groups. Most of the L1 Spanish speakers accepted items 39 (89.59%), 41 (93.75%) and 43 (75%) - all related to events. In items 33 (weather evaluation), 35 (place evaluation) and 37 (event), the acceptance rate never reaches 34%. However, the results in Graph 6 are much more homogeneous: in all cases except one (item 44), most of the L1 Spanish informants linked the possibility of using *estar* to an experiential inference – i.e., indicating the evaluation is based on personal experience.

Variability is also found in the L1 Portuguese participants' judgements, although the acceptance rates are higher than those of the L1 Spanish speakers. The Portuguese informants generally accepted items 33 (70%), 39 (90%), 41 (90%) and 43 (66.67%). Item 37 also approached 50%. The association of *estar* with personal experience is also dominant in the L1 Portuguese speakers, but significantly less so than in the L1 Spanish group ($p > 0.05$): as seen in Graph 6, the answer option that relates *estar* to the experiential inference never reaches over 70%.

Finally, in the L1 French group, items 33 and 37 are often accepted (at 60.87% and 56.53%), but overall variability is a noticeable trend. Additionally, the experiential inference connection with the use of *estar* is not clearly established: the link is only seen by more than 50% of the participants in items 36 (71.74%), 38 (69.57%) and 40 (67.4%). While the majority of items accepted match in the Spanish L1 and Portuguese L1 groups, the acceptance in the French L1 group follows a different pattern.

Graph 5. Task 2, acceptability judgements on *estar* + IL-adjective

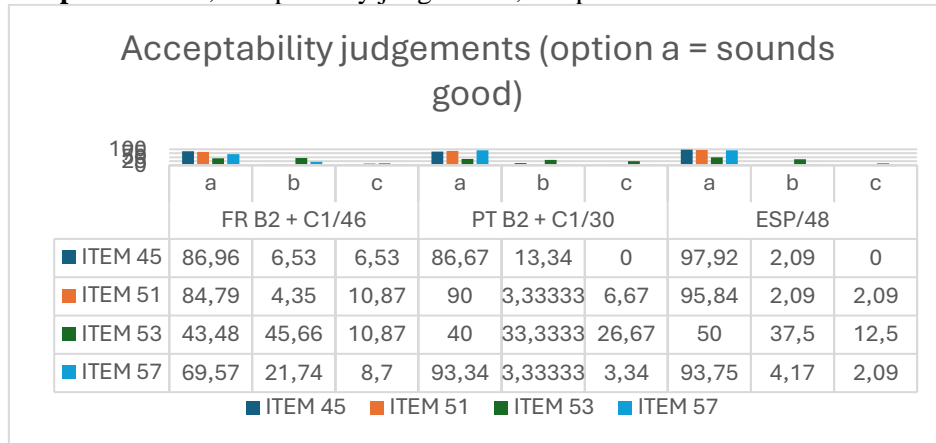
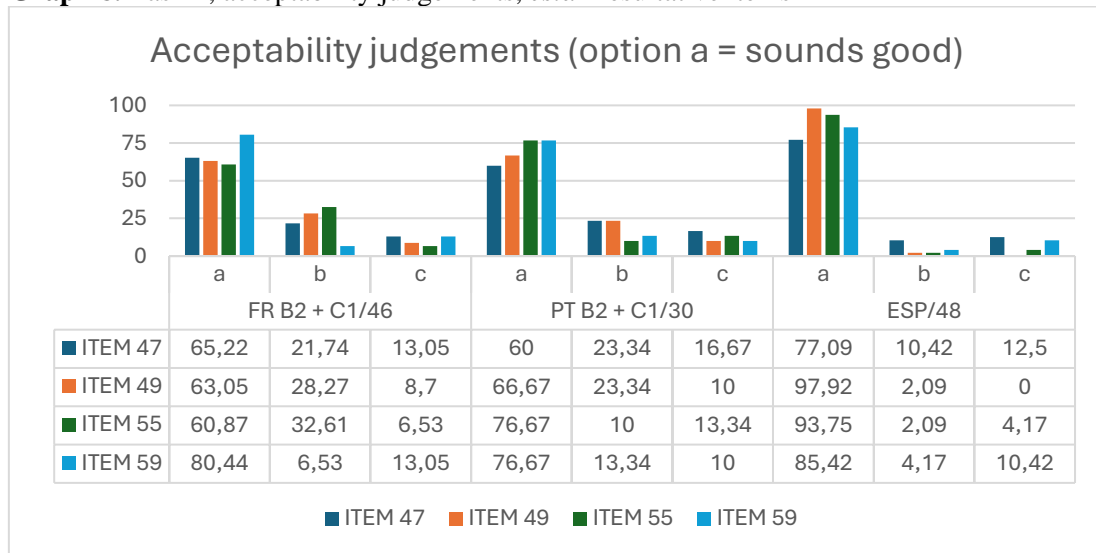


Graph 6. Task 2, type of interpretation of *estar* + IL-adjective

In another set of Task 2 items, participants were asked to judge the acceptability of sets of items containing participles in *ser*-passive and *estar*-resultative items. All the participles used in this task were telic and could be combined with the two verbs to convey different meaning (passive vs. resultative). Thus, each participle was used twice (with *ser* and with *estar*, respectively). The responses of the participants are summed up in Graphs 7 and 8.

The passive items (with *ser*) are accepted by all three L1 groups, with the exception of item 53, which raises doubts in all three (this is possibly due to the use of the simple present simple with an activity predicate, instead of *estar* + gerund). The trends are similar in all the L1 groups, although variability is somewhat higher among the Portuguese and French learners of L2 Spanish, compared to the native Spanish speakers. However, the differences do not reach statistical significance ($p > 0.05$).

As for the resultative items (with *estar*), they are general accepted by L1 Spanish participants, with little variability. The L2 Spanish learners also tend to accept those items, but the acceptance rate is clearly lower, and there is more variability in the answers, especially in the L1 French group. The fact that the L1 French speakers align with the native Spanish speakers in the acceptability of the *ser*-passive items but not in that of the *estar*-resultative items points to a tendency for the French participants to choose *ser* as the default auxiliary when in doubt.

Graph 7. Task 2, acceptability judgements, *ser*-passive items**Graph 8.** Task 2, acceptability judgements, *estar*-resultative items

5. Discussion and Conclusions

Now that the results of the two tasks have been reported, we have come to a point where some conclusions can be drawn; for this purpose we can turn back to the research questions set out above in section 4 and sum up our findings in relation to each one.

- (i) Which of the two (syntax/semantics vs. syntax/semantics/pragmatics) interfaces represent a bigger challenge for our L2 speakers, and why?

By testing the different groups of participants on their interpretations of utterances with different combinations of *ser* or *estar* with participles and with unbounded adjectives, we explored the potential challenges of interpretations at the syntax-semantics interface and at the syntax-semantics-pragmatics interface. Our findings showed that the learner groups tended to be more successful in the tasks requiring processing at this internal interface (i.e., syntax-semantics), compared to the other items which probed their ability to interpret combinations involving the syntax-

semantics-pragmatics interface. The L1 Portuguese participants performed as efficiently as the L1 Spanish speakers in their responses. This contrasted with the results of the learner groups when responding to the items that required processing that involves operating at the syntax-semantics-pragmatics interface. Their ability to accurately identify the nuances involved in *ser* / *estar* alternation with ILPs was consistently weaker than that of the L1 speakers. The L1 French group was especially taxed by items requiring external interface processing. This finding leads us to our next research question.

- (ii) Considering the properties of the two L1s of our L2 speakers, is there any noticeable interlinguistic transfer effect, based on the distinction of *ser/estar* with past participles and of individual-level predicates, among French and Portuguese speakers of L2 Spanish?

Our data suggest that acquiring the *ser/estar* combinations studied in Spanish as an L2 is more challenging for speakers who start out speaking languages with a single copula like French, than for those who can speak a language, like Portuguese, with a similar system of copulas. Crosslinguistic influence for Portuguese speakers, especially the *ser/estar* combinations common to both languages, led to advantages in acquiring them. However, when faced with combinations that differ between Spanish and Portuguese, these learners also had difficulty in interpreting and judging the acceptability of Spanish copula choices. Moving on to our third and final research question:

- (iii) Do L1 speakers of Spanish apply the restrictions on aspectual coercion uniformly, or is there variability? What are the implications for the concept of 'native competence'?

The L1 Spanish-speaking participants showed ample variability in their responses to items probing processing at the syntax/semantics/pragmatics interface, namely, the items whose interpretation involved aspectual coercion of unbounded adjectives. In contrast, this group's responses to items eliciting syntax-semantics (*ser/estar* with participles) were practically unanimous. This contrast suggests that native speaker variability was not brought about by differing grammatical representations, but rather, arises by way of inferential processes that are triggered by feature mismatches. As explained in section 4, combining adjectives that have the feature [-bounded] with *estar*, which possesses an aspectual inchoative feature [+bounded], encoding the initial boundary of a situation, requires interpreting an apparent incongruence that brings about extra processing effort. According to RT principles, the interpretation that is regularly triggered comes about by way of an inferential process that leads to extra implicatures, thereby satisfying expectations of relevance. Specifically, the interpretation requires pragmatic enrichment based on the feature mismatch these combinations entail, and the variable responses of native speakers are a result of inferentially solving the cases of aspectual coercion.

Finally, in section 4 we also put forth our expectations for how the groups of participants would respond to the different sets of items. We now briefly review the expectations in reference to our findings. Firstly, as to the syntax-semantics interface (when choosing *ser/estar* with participle), we found, as expected, that L1 Spanish speakers are sensitive to the [\pm telic] [\pm change of state] semantic features restricting

the combinations of *estar* + participle. This participant group responded as expected systematically, except for to one item which, as explained in section (4), was ambiguous. The responses were linguistically determined, based on the syntactic and semantic properties of the structured tested. We foresaw challenges with these items for the L1 French speakers, as French lacks the possibility of contrasting two auxiliary verbs with participles. This participant group showed plentiful variability, probably because they were swayed towards choosing *ser* because of corresponding French constructions. The Portuguese participants, also as expected, responded to these items very similarly to the L1 Spanish group, in fact their responses were statistically equivalent. As also expected, although they responded very similarly to the L1 Spanish group, the Portuguese learner group did show more variability in their responses.

As to the items requiring processing at the external interface, i.e., involving the integration of syntactic and pragmatic competence, our expectation that the learner groups would show greater variability than they did when dealing with internal interfaces was also fulfilled in the data we obtained. The item set where participants were faced with IL adjectives led, as we had expected, to persistent challenges for both learner groups and especially for the L1 French participants; a clear indication of this lasting difficulty can be found in the lack of significant progression between the B2 and C1 level participants. The French learners, whose L1 only has one copula, responded practically at chance level to the items including cases of aspectual coercion. Also as expected, the French-speaking group were more prone to using or preferring *ser* than the other participant groups, pointing towards their tendency to consider it the default copula. The L1 Portuguese group, whose first language features a more widespread range of uses of *estar* than Spanish, also responded to items involving external interface properties with more variability than the L1 Spanish speaking group, showing that this kind of processing is a long-lasting source of challenges even when crosslinguistic influence based on similarities across the first and target languages can strongly favour its development.

Lastly, the variability in the interpretations and judgments on items involving the external interface due to feature mismatches that trigger extra inferential processing, and leading to evidential or experiential inferences, was high also within the L1 Spanish-speaking group. We consider this to reinforce our position in considering the experiential inference as the result of a pragmatically-based (re)interpretation process that requires contextual enrichment, intrinsically characterized by the potential to lead to a wider range of ways to reach a conclusion on the speaker-meaning or the sense of the utterance. Thus, future research should consider, for instance, different testing modality, investigating different populations with different types of input. Likewise, those linguistic domains more vulnerable to cross-linguistic influence need to be accurately determined since we still do not have a clear-cut picture. All the same, future studies need to continue investigating this line of research to have a clearer and solid picture of potential locus for variability among native speakers, since their grammar constitutes the linguistic input for L2 speakers.

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References

Abeillé, Anne, & Danièle Godard (eds). 2021. *La Grande Grammaire du Français*. Paris: Actes Sud.

Alcina, Juan, & José Manuel Blecua. 1975. *Gramática española*. Barcelona: Ariel.

Arche, María. 2012. A note on the Individual-Level/Stage-level dichotomy: how aspectual is it? *Borealis: An International Journal of Applied Linguistics* 1(12): 109–132. <https://doi.org/10.7557/1.1.2.2385>

Brucart, José María. (2012). Copular alternation in Spanish and Catalan attributive sentences. *Revista de Estudos Linguísticos da Univerdade do Porto* 7: 9–43.

Bruhn de Garavito, Joyce, & Elena Valenzuela. 2006. The Status of Ser and Estar in Late and Early Bilingual Spanish. In C.A. Klee and T.L. Face (eds), *Selected Proceedings of the 7th Conference on the Acquisition of Spanish and Portuguese as First and Second Languages*, 100–109. Somerville, MA: Cascadilla.

Bruhn de Garavito, Joyce, & Elena Valenzuela. 2008. Eventive and stative passives in Spanish L2 acquisition: a matter of aspect. *Bilingualism: Language and Cognition* 11 (3): 323–336.

Bruhn de Garavito, Joyce. 2009. Eventive and Stative Passives: The Role of Transfer in the Acquisition of *ser* and *estar* by German and English L1 Speakers. In J. Collentine, M. García, B. Lafford, and F. Marcos Marín (eds), *Selected Proceedings of the 11th Hispanic Linguistics Symposium*, 27–38. Somerville, MA: Cascadilla.

Camacho, José. 2012. *Ser* and *Estar*: The Individual/Stage-Level Distinction and Aspectual Predication. In J.I. Hualde and A. Olarrea, *The Handbook of Hispanic linguistics*, 453–477. Oxford: Wiley-Blackwell.

Carlson, Greg. 1977. *Reference to kinds in English*. Unpublished Ph.D., University of Massachusetts.

Conti-Jiménez, Carmen. 2004. Construcciones pasivas con “estar”. *ELUA: Estudios de Lingüística* 18: 21–44. <https://doi.org/10.14198/ELUA2004.18.02>

Cunha, Celso, & Lindley Cintra. 2005. *Nova Gramatica do Português Contemporaneo*. Lisbon: Edições Joao Sa Da Costa.

Delbecque, Nicole, & Béatrice Lamiroy. 1999. La subordinación sustantiva: las subordinadas enunciativas en los complementos verbales. In I. Bosque and V. Demonte (eds), *Gramática Descriptiva de la Lengua Española*, 1965–2081. Madrid: Espasa-Calpe.

Diesing, Molly. 1992. *Indefinites*. Cambridge, MA: The MIT Press.

Dugarova, Esuna. 2014. Russian speakers' L2 Chinese acquisition of *wh*-topicalization at the syntax–discourse interface. *Second Language Research* 30(4): 411–437. <https://doi.org/10.1177/0267658313516974>

Escandell-Vidal, María Victoria. 2018. Ser y estar con adjetivos. Afinidad y desajustes de rasgos. *Revista Española de Lingüística* 48: 57–115. <http://doi.org/0.31810/RSEL.48.3>

Escandell-Vidal, María Victoria. 2019. Evidential Explicatures and Mismatch Resolution. In K. Scott, B. Clark, and R. Carston (eds), *Relevance, Pragmatics and Interpretation*, 66–79. Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781108290593>

Escandell-Vidal, María Victoria, Manuel, Leonetti, & Aoife Ahern (eds). 2011. *Procedural Meaning. Problems and Perspectives*. Leiden: Brill.

Fábregas, Antonio, & Rafael Marín. 2021. Participles and gerunds. In A. Fábregas, V. Acedo-Matellán, G. Armstrong, M.C. Cuervo, and I. Pujol Payet (eds), *The Routledge Handbook of Spanish Morphology*, 484–498. Oxon and New York: Routledge.

Fernández-Leborans, María Jesús. 1995. Las construcciones con el verbo estar: aspectos sintácticos y semánticos. *Verba* 22: 253–284.

Gallego, Ángel, & Juan Uriagereka. 2009. Estar = Ser + P. *XIX Colloquium on Generative Grammar*, Euskal Herriko Unibertsitatea, April 1–3, 2009.

García Méndez, María José. 2006. Ser y Estar: Anotaciones sobre algunos divergentes entre el portugués y el español. In S. Howcroft (ed.), *Actas do Encontro Internacional de Linguística Aplicada*, 151–171. Aveiro: Departamento de Línguas e Culturas da Universidade de Aveiro.

Geeslin, Kimberly L. 2003. A comparison of copula choice in advanced and native Spanish. *Language Learning* 53: 703–64. <https://doi.org/10.1046/j.1467-9922.2003.00240.x>

Geeslin, Kimberly L. 2014. The Acquisition of the Copula Contrast in Second Language Spanish. In K.L. Geeslin (ed.), *The Handbook of Spanish Second Language Acquisition*, 219–134. Hoboken: Wiley.

Gili Gaya, Samuel. 1943. *Curso superior de sintaxis española*. Barcelona: Biblograf.

Guijarro-Fuentes, Pedro, Ahern, Aoife, & José Amenós-Pons. 2020. La interfaz gramática/pragmática y su papel en el aprendizaje de segundas lenguas. In M.V. Escandell-Vidal, J. Amenós-Pons, and A. Ahern (eds), *Pragmática*, 713–728. Madrid: Akal.

Guijarro-Fuentes, Pedro, Amenós-Pons, José, & Aoife Ahern. 2023. Acquisition of ESTAR + adjective in L2 Spanish by L1 French and Portuguese speakers. *Spanish in Context* 20(2): 281–312.

Gumiel-Molina, Silvia, Moreno-Quibén, Norberto, & Isabel Pérez-Jiménez. 2015. The inference of temporal persistence and the individual/stage level distinction: the case of *ser* vs. *estar* in Spanish. In I. Pérez-Jiménez, M. Leonetti, and S. Gumiel-Molina (eds), *New Perspectives on the Study of Ser and Estar*, 119–146. Amsterdam: John Benjamins. <https://doi.org/10.1075/ihll.5.05gum>

Gumiel-Molina, Silvia, Moreno-Quibén, Norberto, & Isabel Pérez-Jiménez. 2021. *Ser y estar dentro y fuera del español*. Madrid: Arco Libros.

Gumiel-Molina, Silvia, Moreno-Quibén, Norberto, & Isabel Pérez-Jiménez. 2024. Lexical–Syntactic Classes of Adjectives in Copular Sentences across Spanish Varieties: The Innovative Use of *Estar*. *Languages* 9(1): 20. <https://doi.org/10.3390/languages9010020>

Laka, Itziar. 2017. Bilinguals and knowledge of language: a commentary to “language acquisition and linguistic theory”. *Applied Linguistics Review* 13(1): 141–148. <https://doi.org/10.1515/applirev-2017-0096>

Lardiere, Donna. 2009. Some thoughts on the contrastive analysis of features in second language acquisition. *Second Language Research* 25: 173–227. <https://doi.org/10.1177/0267658308100283>

Leonetti, Manuel, & Gonzalo Escribano. 2018. El papel del aspecto gramatical en las construcciones con *estar* y adjetivos de propiedades. *Revista Española de Lingüística* 48: 115–148. <http://doi.org/0.31810/RSEL.48.4>

Mañas-Navarrete, Iban, Guijarro-Fuentes, Pedro, & Iría Bello-Viruega. 2023. The acquisition of copula alternation *ser/estar* and adjective in L1 Russian, Spanish heritage speakers. *Languages* 8: 269. <https://doi.org/10.3390/languages8040269>

Mateus, Maria Helena M., Brito, Ana Maria, Duarte, Inês, & Isabel H. Faria. 2003. *Gramática da Língua Portuguesa*. Lisbon: Caminho.

Montrul, Silvina. 2011. Multiple interfaces and incomplete acquisition. *Lingua*, 121(4), 591–604. <https://doi.org/10.1016/j.lingua.2010.05.006>

Montrul, Silvina. 2023. Heritage Languages: Language Acquired, Language Lost, Language Regained. *Annual Review of Linguistics* 9(1): 399–418. <https://doi.org/10.1146/annurev-linguistics-030521-050236>

Moreno Cabrera, Juan Carlos. 2011. La aspectualidad fásica de los estados resultativos. In A. Carrasco Gutiérrez (ed.), *Sobre estados y estatividad*, 8–25 Munich: Lincom.

Pérez-Jiménez, Isabel, Gumiel-Molina, Silvia, & Norberto Moreno-Quibén. 2018. Ser y estar en las lenguas romances ibéricas: las oraciones copulativas con atributo adjetival. *Revista Española De Lingüística* 48, 153–198.

<https://doi.org/0.31810/RSEL.48.5>

Pérez-Jiménez, Isabel, Gumiel-Molina, Silvia, & Norberto Moreno-Quibén. 2021. *Ser y estar dentro y fuera del español*. Madrid: Arco.

Perpiñan, Silvia, Marín, Rafael, & Itziri Moreno Villamar. 2019. The role of aspect in the acquisition of *ser* and *estar* in locative contexts by English-speaking learners of Spanish. *Language Acquisition* 27: 35–67.

<https://doi.org/10.1080/10489223.2019.1610408>

Real Academia de la Lengua Española/Asociación de Academias de la Lengua Española. 2009. *Nueva Gramática de la Lengua Española*. Madrid: Espasa-Calpe.

Rizzi, Luigi. 1997. The Fine Structure of the Left Periphery. In L. Hageman (ed.), *Elements of Grammar*, 281–337. Dordrecht: Kluwer.

Schmitt, Cristina, Holtheuer, Carolina, & Karen Miller. 2004. Acquisition of copulas *ser* and *estar* in Spanish: Learning lexico-semantics, syntax, and discourse. In *Proceedings of Boston University Conference on Language Development*. Somerville, MA: Cascadilla.

Silvagni, Federico. 2018. Sobre la distinción entre individuo/estadio y su relación con *ser* y *estar*. *Revista Española de Lingüística* 49-1: 15–56.

<http://doi.org/0.31810/RSEL.48.2>

Silvagni, Federico. 2021. *La gramática de ser y estar*. Madrid: Arco Libros.

Sorace, Antonella. 2011. Pinning down the concept of “interface” in bilingualism. *Linguistic Approaches to Bilingualism* 1: 1–33. <https://doi.org/10.1075/lab.1.1.01sor>

Sorace, Antonella. 2012. Pinning down the concept of interface in bilingual development. A reply to peer commentaries. *Linguistic Approaches to Bilingualism* 2: 209–217. <https://doi.org/10.1075/lab.2.2.04sor>

Sorace, Antonella, & Francesca Filiaci. 2006. Anaphora resolution in near-native speakers of Italian. *Second Language Research* 22: 339–368.

<https://doi.org/10.1191/0267658306sr271oa>

Sorace, Antonella, & Ludovica Serratrice. 2009. Internal and external interfaces in bilingual language development: beyond structural overlap. *International Journal on Bilingualism* 13: 195–210. <https://doi.org/10.1177/1367006909339810>

Sperber, Dan, & Deirdre Wilson. [1986] 1995. *Relevance: Communication and Cognition*. Oxford: Blackwell.

Vega y Vega, Jorge Juan. 2011. *Qu'est-ce que le verbe être? Éléments de morphologie, de syntaxe et de sémantique*. Paris: Honoré Champion.

White, Lydia. 2011. Second Language Acquisition at the Interfaces. *Lingua* 121(4): 577–590. <https://doi.org/10.1016/j.lingua.2010.05.005>