The Status of *Ser* and *Estar* in Late and Early Bilingual L2 Spanish

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1. Introduction

The characterization of the final state of the second language (L2) grammar is one of the most debated issues in current L2 research. Specifically, research centers on the question of what, if any, areas of the grammar are particularly vulnerable to fossilization or incomplete acquisition. Recent research has found that the areas of language where syntax interfaces with other systems are more vulnerable to processes such as attrition and incomplete learning than syntax proper (Montrul 2002, Sorace 2000a, Tsimpli et al. 2003). This vulnerability is seen in bilingual acquisition, adult L2 acquisition, as well as with native speakers out of contact with their L1 for long periods. The present paper examines the status of *ser* and *estar*, the two copula verbs in Spanish in the late and early bilingual L2 Spanish of L1 English speakers and shows that fossilization occurs at the interpretive level.

2. Syntactic background: *ser* and *estar*

The two Spanish copula verbs, *ser* and *estar*, encode all of the semantic features found in the single English copula verb, *to be*. The lexical semantic properties differ between both verbs, as in (1a)-(1b):

\[(1)\]
\[\begin{align*}
(1a) & & \text{Alicia está delgada.} \\
& & \text{‘Alicia is thin.’} \\
(1b) & & \text{Alicia es delgada.} \\
& & \text{‘Alicia is thin.’}
\end{align*}\]

While both (1a) and (1b) translate into English as ‘Alicia is thin’, the interpretive difference in Spanish between both sentences is significant. In (a), the interpretation is that Alicia is thin as a result of having lost weight. The interpretation of (1b), on the other hand, is that Alicia is a thin person. Thus, they appear with the same predicates but with different interpretations. A less subtle interpretive difference is found in (2a)-(2b):

\[(2)\]
\[\begin{align*}
(2a) & & \text{La fruta está verde.} \\
& & \text{‘The fruit is green.’} \\
(2b) & & \text{La fruta es verde.} \\
& & \text{‘The fruit is green.’}
\end{align*}\]

* This project was made possible thanks to a grant from the Social Sciences and Humanities Council of Canada to the first author, for which we are truly grateful.
In (2a), the fruit in question is not yet ripe (thus green) whereas in (2b) the fruit is of green color (such as a green apple). *Ser* and *estar*, therefore, are in complementary distribution but as example (2) shows there is a strong interpretive component.

The difference between the two passives has been described as related to aspect, that is, the difference between events and states. Varela (1992) has noted that the participles used in verbal passives and those used in adjectival passives differ in their aspectual interpretation. For example, in (3a), with the verb *ser*, the interpretation points to the beginning of the act of building, while the same sentence with the verb *estar* (3b) points to the end, that is, the resulting state.

(3) a. La casa será construida en marzo. (Varela 1992:225)
   ‘The house will be built in March.’ <beginning>

b. La casa estará construida en marzo.
   ‘The house will be built in March.’ <end result>

The different distributions between *ser* and *estar* have traditionally been described as permanent (*ser*) versus temporary (*estar*) properties. As Schmitt et al. (2004) point out, this distinction refers to a tendency and not to a grammatical property. Analyses which have focused on the syntax and/or semantic principals have accounted for the difference between the two copulas as being linked to aspect (Lema 1992, Luján 1981, Schmitt 1992). Schmitt (1992) and Schmitt et al. (2004) contend that *ser* is unmarked for aspect and therefore derives its aspectual interpretation from the type of predicate. By contrast, *estar* represents the result state of an accomplishment verb. Under Schmitt’s analysis, then, *ser* can take individual level predicates, while *estar* is restricted to stage level predicates. As a consequence, the subject of *ser* can be interpreted as either generic or specific, as in (5a), while the subject of *estar* can only be interpreted as specific, as in (5b):

(4) a. Los clientes son impacientes.
   ‘(The) customers are impatient’ (can refer to customers in general or to a specific group of customers)

b. Los clientes están impacientes.
   ‘The customers are impatient’ (can only refer to a specific group of customers)

Silva-Corvalán’s (1986) analysis distinguishes three factors which are used to differentiate the two copulas in Spanish: (i) individual versus class frame of reference, (ii) susceptibility to change, and (iii) circumstantial attribute. In contrast, Luján (1981) argues that *estar* is perfective and therefore refers to a delimited length of time. By contrast, *ser* is imperfective and refers to an undelimited duration of time. This distinction is schematized in (6) and (7):

(5) **Estar:** \( A(x) \) at time \( T_j \)

(6) **Ser:** \( A(x) \) at time \( T_j + K \)

Example (6) illustrates the scenario for the verb *estar*. We see predicate \( A \) and individual \( x \) at time \( T_j \) where \( T_j \) denotes one limited time. In (7) we see that with the verb *ser*, which is not perfective, predicate \( A \) and individual \( x \) are at time \( T_j + K \) where \( T_j + K \) denotes no temporal limits. In this way, only the subject of *ser* can be interpreted as a generic, as in (8a) and (8b):

(7) a. Los niños **son** cariñosos.
   ‘The children are affectionate.’

b. Los niños **están** cariñosos.
   ‘The children are affectionate.’

The interpretation of the subject of *ser* in (8a) is of children in general or a specific group of children whereas the interpretation of the subject of *estar* in (8b) is only of a specific group of children. Since
**estar** denotes a specific point in time, then it follows that the subject can only refer to a specific object or person. On the other hand, as **ser** can have no temporal limits then its subject can be generic and not fixed in time. Genericity of the subject is therefore linked to the aspectual properties of each copula.

We assume, following (Lema 1992, Luján 1981, Schmitt 1992) that the difference between the two copula verbs in Spanish is mainly aspectual. Table 2 below shows a summary of the properties associated with the copulas:

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<th><strong>SER</strong></th>
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Table 2: Summary of properties

### 3. Acquisition theory

Sorace (1993) distinguishes two possible L2 end states: **divergent** grammars and **incomplete** grammars. While a divergent grammar is one that represents some L2 property differently from the native speaker grammar, an incomplete grammar is one that somehow lacks a particular property of the L2. In both cases, native-like performance is possible despite the fact that the underlying representation is different from the native speaker representation. With respect to L2 steady state grammars, Sorace argues that non target competence is due to persistent or residual optionality. Sorace (1999) points out that the Full Transfer/Full Access (FT/FA) model of Schwartz and Sprouse (1994, 1997) best explains the phenomenon of optionality. Indeed, the FT/FA predicts that fossilization in the end state may occur in cases where the L2 speaker cannot ‘delearn’ an L1 property in their L2 and consequently do not restructure their grammar due to a paucity of input. Thus, both Sorace and FT/FA base persistent non-target forms on L1 influence. In Sorace’s terms, an L2 end state grammar which exhibits fossilization as predicted by the FT/FA is a divergent grammar. Moreover, the co-existence of the L1 form and the L2 form in the L2 end state is a form of residual optionality.

Sorace (1993, 1999, 2000a, 2000b, 2003, Robertson & Sorace 1999, Tsimpli et al. 2003) proposes an account of the type of optionality found in L2 grammars. Robertson and Sorace (1999) contend that the source of optionality is at the interface level, specifically the interface between the lexicon and the interlanguage syntax. When the L2 input data that the learner are exposed to are insufficient and do not allow the L2 speaker to restructure their grammar, the learner is then unable to let go of one of the two forms of the construction resulting in permanent optionality between both variations. This ‘permanent optionality’ therefore is fossilization at the level of interpretation in the L2 end state. In fact, her claim is that a near-native speaker grammar “differs often in non-obvious ways from the monolingual native’s” (Sorace 2000b:131). Under Sorace’s theory, fossilization is predicted to occur at the interpretive level. Sorace’s theory, therefore, allows for predictions about the discourse/interpretive domain.

### 4. Previous L2 research of **ser/estar**

Previous L2 research on **ser/estar** found similarities in incomplete learning, historical change and L2 acquisition of the copulas (Geeslin 2001, 2002a, 2002b, Silva Corvalán 1986). The studies found that both historical and individual change takes place by an extension of the uses of **estar**. This extension is attributed to the idea that throughout language change **estar** loses some of the restrictions on its use that distinguish it. Moreover, these aspectual features are semantic in nature. In fact, previous proposals have indicated that aspect in L2 Spanish is vulnerable to gradual acquisition and to cross-linguistic interference (Klee and Ocampo 1995, Salaberry 2001, Sánchez 2004).
Bruhn de Garavito and Valenzuela (2003, 2004) looked at the relation of the copulas to adjectival and verbal passives. The authors found that the interpretation of some aspects of the copulas, such as genericity, were problematic even at the advanced level while properties relating to syntax proper were more easily acquired. Assuming that genericity of the subject is linked to the aspectual features of the given copula, then aspect was vulnerable to fossilization. As Montrul (2002) points out, the semantics of aspect are particularly vulnerable to processes such as attrition and incomplete learning. Given the above findings, and assuming the lexical/semantics interface is somehow more vulnerable to influence and change, then both early bilinguals and late learners may perform in a different way than monolinguals.

5. Research questions

Assuming the difference between ser and estar to be aspectual, the L1 English learner of L2 Spanish must learn to correctly map the aspectual features to the appropriate copula. The research questions are as follows:

i. Will adult L2 learners be able to distinguish between the two copulas? In other words, will they be able to acquire the aspectual feature(s) that distinguish ser and estar?

ii. Will early bilinguals be able to distinguish between the two copulas or will we find attrition, as some previous studies have done?

iii. Will the two groups differ with respect to the acquisition of the interpretive properties, namely the genericity distinction, associated with ser and estar?

6. Methodology

6.1 Participants

There were three participant groups in this study. They were a group of 11 monolingual Spanish speakers from different countries, a group of 15 adult speakers of L2 Spanish, and 7 simultaneous English/Spanish bilinguals. All participants were university students at the time of testing. The L2 group was made up of learners who began to study Spanish at or after puberty. Some of them were living in a Spanish speaking country at the time of testing, others were living in Canada. The simultaneous bilingual group was made up of people who had grown up speaking both English and Spanish at home as children. 1 All of the simultaneous bilinguals were living in Canada at the time of testing. All participants were interviewed orally, and the taped interviews were subsequently judged by two native speakers on four criteria (morphology, syntax, phonology, and vocabulary), who gave them an overall rating between 7 and 10 (where 10= native speaker).

6.2 Tasks

Participants were given two tasks, the first of which was a grammaticality judgment task 2 consisting of 70 sentences ranging over 14 types, 5 tokens for each type. They tested knowledge of: verbal and adjectival passives (aspect, agentivity), individual and stage level predicates (including participles that have been adjectivized by the addition of a prefix – e.g., inacabado). Each of the sentence types had a minimal pair, once with ser and once with estar. The sentences were to be judged on a scale from 1 (ungrammatical) to 5 (grammatical) with an ‘I don’t know’ option. Examples (9a)-(11) are sample sentences from the grammaticality judgment task:

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1 Three of the speakers were born in Chile and Colombia but had moved to Canada at grade school age.

2 Participants were given three tasks but the third (a translation task) will not be reported on in the present paper.
(8) a. Aquí la comida es/está preparada por un cocinero profesional.  
    here the food is prepared by a cook professional
    ‘The food here is prepared by a professional cook.’

b. Aquí la comida es/está preparada antes de la llegada de los clientes.
    here the food is prepared before the arrival of the clients
    ‘Here the food is prepared before the arrival of the clients.’

(9) a. El libro fue/estuvo escrito en Inglaterra.
    the book was (pret) written in England
    ‘The book was written in England.’

b. El artículo *era/estaba escrito en inglés.
    the article was (imp) written in English
    ‘The article was written in English.’

(10) El libro estaba/era inacabado.
    the book was unfinished
    ‘The book was unfinished.’

The second task was a selection task in which participants were asked to read a short background scenario, and were then given two sentences, one with *ser* and one with *estar*. They were asked to select the most appropriate concluding sentence, whether neither was acceptable or whether both were acceptable. In this paper we will be reporting the results of 10 scenarios which examined the interpretation of the genericity of the subject of each of the copulas. Recall that with *ser* the subject may be interpreted as either generic or non-generic. The background scenario forced either a generic or a specific interpretation of the subject in the target sentence. Therefore the participants could not choose the verb *estar*. There were 5 scenarios of the ‘generic’ type as in (12). We decided to accept as correct a response of ‘neither’ for the verbal passives because of the strong preference that a native speaker may have for the impersonal passive in many of these sentences. The important thing to note is that a choice of *estar* is ungrammatical given that the subject is generic if the story is interpreted correctly. Therefore a choice of the adjectival passive or of both options would be incorrect. The scenarios which forced a specific subject in the target sentence could, in a way, be answered with either *ser* or *estar*. However, these stories were constructed such that the strong preference was for *estar* as in (13).

(11) A Carlos no le gusta la comida del Perú. Siempre se queja. Carlos dice:
    a. En el Perú el pescado es preparado crudo.
    b. En el Perú el pescado está preparado crudo.
    c. Ni a ni b
    d. Ambas a y b

    ‘Carlos does not like the food from Peru. He always complains. Carlos says:
    a. In Peru fish is (*ser*) prepared raw. (Correct answer)
    b. In Peru fish (*estar*) is prepared raw. (Incorrect answer)
    c. Neither a nor b. (Possible answer)
    d. Both a and b. (Incorrect answer)

3 An anonymous reviewer suggested that option (c) hides a potential preference for impersonal passives as in (i):

    (i) En el Perú, el pescado se prepara crudo.

While this is a potential problem, this was not the option that was selected.
Luisa y Guillermo están en el partido final del campeonato de fútbol en el que juega su equipo favorito. Suelen ir a todos los partidos pero hoy Luisa no lo está pasando bien porque...

a. Los fanáticos son violentos.
b. Los fanáticos están violentos.
c. Ni a ni b
d. Ambas, a y b

‘Luisa and Guillermo are at the final match of the soccer championship in which their favorite team is playing. They usually go to all the games but today Luisa is not having a good time because...’

a. The fans are (ser) violent. (Incorrect answer)
b. The fans are (estar) violent. (Correct answer)
c. Neither a nor b. (Incorrect answer)
d. Both a and b. (Incorrect answer)

6.3 Results
6.3.1 Results for the grammaticality judgment task

In Figure 1, group results on ser and estar adjectives in the grammaticality judgment task are shown. As can be seen, both groups distinguish between grammatical and ungrammatical sentences. Therefore the results are as expected for all 3 groups with respect to the two copulas with adjectives. There is no significant difference between the groups in this area. However, the adjectivized participles such as inacabado appear to be somewhat problematic for the L2 learners. That is, L2 speakers are accepting sentences to a greater degree than is expected. There is a significant difference between the groups on the ungrammatical sentences \[ F(2, 30)=.731, p=.0065 \]. A Scheffe F-test shows the L2 learners differ significantly from the monolingual speakers. Having said this, there is a significant difference between the treatment of grammatical and ungrammatical tokens by the L2 group \[ F(1, 14)=18.393, p=.0007 \]. See Table 1 of the Appendix for a summary of the statistical information.
6.3.2 Results for the sentence selection task

In Figure 2, the results for the Sentence Selection are shown. Recall that this task tested genericity of the subject with *ser* and *estar*. As can be seen, all three groups display high accuracy for copula choice when the story forced a generic or specific interpretation of the subject when the predicate is an adjective:

(13) Los niños son/están cariñosos  
‘The children are/are affectionate’

However, there is a significant difference between the groups when the subject is generic and the predicate is a participle \[ F(2, 30)=507.221, p=.0001 \]. A post hoc Scheffe F-test shows the L2 learners differ from the other two groups. (See Table 2 of the Appendix for a summary of the statistical information).

(14) El té es/está servido sin azúcar  
‘The tea is/is served without sugar’

Figure 2: Mean group accuracy (%): sentence selection task

7. Discussion

The aim of the present paper was to examine whether learners could acquire the syntactic and interpretive differences between *ser* and *estar*, and whether some properties of the two copula verbs were vulnerable to fossilization or incomplete acquisition. The data provide evidence in favour of Sorace (2000a, 2003) and Robertson and Sorace (1999) who claim that syntactic properties of the L2 are acquirable but that interpretive constraints are vulnerable to permanent impairment in the L2 grammar. Sorace claims that the L2 grammar will display divergence from the target grammar in the interpretive domain.

The early bilinguals performed indistinguishably from the monolinguals on all areas of the test. This seems to indicate that, while attrition or incomplete learning are possible end states of early
bilingualism (Montrul 2002), they are not necessarily inevitable outcomes of bilingualism. However, a larger bilingual subject group might contain a number of bilinguals who do not perform as well.

With respect to the L2 learner group, the problematic area for them appears to be the participial adjectives and not the copulas themselves. Varela (1992) has suggested that participles maintain some aspectual properties of the verb. Therefore, it is possible that L2 learners have not learned the lexical semantic properties of participles but have learned the lexical/semantic properties of the copulas. This suggests that optionality was present in the L2 grammar in the case of participles but not in the grammar of the early bilingual speakers. A tentative explanation is that English participles do not encode aspect in the same way as Spanish participles do as shown in the asymmetry in (16) and (17). Namely, the English counterpart (in (17)) requires the auxiliary to carry the aspectual features whereas the Spanish participle carries aspect on its own (as in (16)):

(15) Terminado el artículo, nos fuimos para la casa.
    Finished the article, we went to the home

(16) Having finished the article, we went home.

Turning to the research questions, when the predicate is adjectival the L2 group performs like the native speakers. However, when the predicate is a participle, they do not perform as native speakers (cases in which a participle carries a prefix – inacabado). What is more, the L2ers were not able to distinguish the ungrammatical interpretation of a subject of estar as a generic when the predicate was a participle.

In conclusion, adult L2 learners distinguished between the two copulas in Spanish but did not appear to have acquired the associated interpretive properties. Early bilinguals both distinguished between the two copulas and showed sensitivity to the associated semantic properties. The two groups differed with respect to the acquisition of the interpretive properties associated with ser and estar, thereby providing evidence that while lexical semantic properties are vulnerable they are not impossible to acquire.

Appendices

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Table 1: Grammaticality judgment task **** p < .0001; *** p < .001; * p < .05
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Table 2: Selection task (accuracy percentages) ***p < .001

References


