INTERMEDIATE L2 ERRORS OF SER AND ESTAR:
A MORPHOLOGICAL AND SEMANTIC COMPARISON

A RESEARCH PAPER SUBMITTED TO THE GRADUATE SCHOOL IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE
MASTER OF ARTS
BY
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DECEMBER 2015
I am very grateful to my advisor, Dr. Frank Trechsel, for all of the helpful feedback and comments throughout the process of collecting data and editing this paper. Thank you, also, to Dr. Carolyn McKay for her helpful feedback and for helping to form the idea of this study. I am grateful to Dr. Megumi Hamada and colleague Matthias Raess for guidance in analyzing the data. I also appreciate the help from colleague Isabel Serrano in checking the Spanish in the survey. And finally, I thank Darren Haney and Iván Martinez for allowing me to collect data for this study from their classes. For all of their help, I am very grateful.
Introduction

The “state of being” is an expression that is used in every single language spoken on Earth (Roby, 2009, p. 1). It is often expressed by means of a be – type verb. This is also known as a copula verb. In languages such as English, there exists only one be verb used to convey all states of being. In other languages such as Spanish or Portuguese, however, more than one verb is used to express different states of being. Usually, when there is more than one copula verb in a language, as in Spanish, these verbs do not exist in free variation. This means that which copula verb is chosen is determined by the state that the speaker wishes to describe (Roby, 2009, p. 1).

In other words, the two Spanish copulas, ser and estar, are found to be in complementary distribution. The two verbs cannot be considered synonyms. Rather, the two states in which each is used must be clearly defined in order to show the differences between these verbs and the unique semantic properties of each verb. Nonetheless, the exact reasons why one of these Spanish copulas is chosen over the other is not always agreed upon by linguists. Although some common principals about the choice of these two verbs have been generally established, there are still many fundamental differences that exist between the theories that have been developed. Because of these differences, ser and estar have caused many troubles for both teachers and L2 learners of Spanish alike (Roby, 2009, p. 1). Particularly for L1 English speakers, features such as the ser/estar distinction that do not exist in their L1 but do exist in the L2 are generally more difficult to acquire than those feature that are shared by the two languages (Montrul, 2004).

Objectives

This study examines adult English speaking L2 intermediate learner’s errors in the acquisition of the two Spanish copula verbs, ser and estar. Ser is commonly explained as being
used when needing to express origin or characteristic. *Estar*, on the other hand, is used to denote a location or a condition (something that could change). Errors in use of these two verbs among the learners will be classified into two types: semantic errors and morphological errors. Semantic errors include the use of *ser* where the learner should have used *estar*, or vice versa, due to improper meaning usage. Morphological errors include an improperly conjugated verb form of either *ser* or *estar* based on the context. For example, using first person *estar* where third person is needed, use of the past form where the verb should be conjugated in the present, or any other spelling error. Thus, morphological errors are not due to the semantic difference between the two copulas. Rather, in morphological errors, the correct copula verb has been chosen but is improperly used.

The research question analyzed is, therefore, whether there is a higher occurrence of semantic or morphological errors of *ser* and *estar* among L2 intermediate level Spanish learners who have not yet mastered all tense conjugations in Spanish. The following three questions will be analyzed:

1. Do L2 Spanish learners at this level commit more morphological or semantic errors involving the verbs *ser* and *estar*?
2. Do Spanish L2 learners commit more morphological errors involving *ser* or *estar*?
3. Are L2 intermediate Spanish learners’ semantic errors more likely to involve choosing *ser* over *estar* or vice versa?

The following hypotheses address each of these questions in turn:

1. It is hypothesized that English learners will generally show more semantic errors than morphological. Due to the lack of direct transfer of these verbs from their L1, semantics
should be the more difficult concept for the learners to grasp, whereas morphological changes in the verbs due to conjugation is simply memorization.

2. Morphologically, more errors should be seen with the verb *estar* over *ser* due to its higher number of occurrences in regular verb forms. This is because at the beginning levels, learners tend to memorize the highly used irregular forms like *ser*, making it less likely to be subject to morphological errors overall. Learning to conjugate *estar* is a process that takes longer for the learner to autonomize (Rodriguez Prieto, 2009).

3. Semantically, research has shown a higher frequency in the use of *ser* over *estar* among L2 learners, especially in the beginning stages (VanPatten, 1985). Also, corpora data shows that *ser* is found more frequently in Spanish overall than *estar* (Davies, 2002-2015). Thus, more errors should be found with the use of *ser* when *estar* is actually needed.

The first independent variable is the linguistic feature, with the two types being either morphology or semantics. This is the between-subjects variable. The second independent variable is the verb choice, either *ser* or *estar*. This is the within-subjects variable, as the verbs will only be analyzed within each individual test. The dependent variable is the learner’s errors in use of *ser* and *estar*, either morphological or semantic. Data is collected from the participants by means of a 28 question test that is divided into two parts. Participants respond to questions that focus on either semantic or morphological use of the verbs, and their errors in use of *ser* and *estar* are analyzed.

**Background Information**

Overall, *ser* and *estar* are found in complementary distribution in these five major instances outlined by VanPatten (2010, p. 30): (a) Only *ser* can be used with predicate Noun
L2 ERRORS WITH SER AND ESTAR

Phrases or Determiner Phrases. Ex: Juan es estudiante (‘John is a student’); (b) Origin can only be expressed with ser. Ex: Juan es de México (‘John is from Mexico’); (c) True passives can only be formed with ser. Ex: La torre fue construida por Juan (‘The tower was built by John’); (d) Progressives may only be formed with estar. Ex: Juan está corriendo (‘John is running’); (e) Only estar is used to form locative constructions, either spatially or temporally. Ex: Juan está en la cocina (‘John is in the kitchen’) (VanPatten, 2010, p. 30).

Use of ser and estar overlap in distribution when it comes to adjectives. Either verb can appear with any adjective, but the difference lies in the interpretation of the circumstances. Ex: (1a) Juan es triste (‘John is sad,’ meaning John is a sad person); (1b) Juan está triste (‘John is sad,’ meaning John seems or appears to be sad, but is not always sad); (2a) Juan es gordo (‘John is fat, meaning John is a large person); (2b) Juan está gordo (‘John is fat, meaning John looks fat or has gained weight). English speakers acquiring Spanish as an L2 have difficulty mastering the distribution of ser/estar in these instances due to the lack of direct transfer from their L1 (VanPatten, 2010, p. 30).

Nevertheless, Guijarro-Fuentes and Geeslin (2003) studied the acquisition of ser and estar among L1 Portuguese speakers and found that they had little advantage over L1 English speakers in terms of attainment. Because Portuguese has two copula verbs just as Spanish does, it was predicted that acquisition of the copulas may be easier for Portuguese speakers than for the native English speakers. The results showed no difference, however, between the English-speaking group and the Portuguese-speaking group. Having direct transfer from an L1, therefore, may not play as large of a role with these copulas as expected.

In terms of morphology, ser and estar may be conjugated in any of the tenses in Spanish, depending on the context. Some of these conjugations are very similar, and could be confused or
used incorrectly by L2 learners. Any spelling errors or improper tense choice of the correct verb was counted as a morphology error. Two such examples might include: (1) Not writing the proper verb form for the subject provided in the sentence (*yo está, first person pronoun yo and third person verb form está, instead of yo estoy, first person pronoun yo and first person verb form estoy); (2) Conjugating the verb in the wrong tense based on the context of the sentence (*Ayer, yo estoy (‘Yesterday, I am’), instead of Ayer, yo estaba (‘Yesterday, I was’)). Below is a table showing the variation in some of the possible verb forms of ser and estar conjugated into the present and preterit (past) indicative.

Table 1

<table>
<thead>
<tr>
<th>Subject</th>
<th>Verb – Present</th>
<th>Verb – Preterit</th>
</tr>
</thead>
<tbody>
<tr>
<td>yo</td>
<td>‘I’</td>
<td>‘I’</td>
</tr>
<tr>
<td>tú</td>
<td>‘you’</td>
<td>‘you’</td>
</tr>
<tr>
<td>él / ella</td>
<td>‘he / she’</td>
<td>‘he / she’</td>
</tr>
<tr>
<td>nosotros</td>
<td>‘we’</td>
<td>‘we’</td>
</tr>
<tr>
<td>vosotros</td>
<td>‘you’ (plural)</td>
<td>‘you’ (plural)</td>
</tr>
<tr>
<td>ellos</td>
<td>‘they’</td>
<td>‘they’</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Subject</th>
<th>Verb – Present</th>
<th>Verb – Preterit</th>
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</thead>
<tbody>
<tr>
<td>soy</td>
<td>fui</td>
<td>estoy</td>
</tr>
<tr>
<td>eres</td>
<td>fuiste</td>
<td>estás</td>
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<tr>
<td>es</td>
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<td>somos</td>
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<td>sois</td>
<td>fuisteis</td>
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<td>son</td>
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<td>estuvieron</td>
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Significance of the Research

The literature on the differences between the ser and estar copulas is fairly comprehensive, with many different speculations. Nonetheless, most of the research has focused on the semantic differences between these verbs and how they are acquired in terms of order (VanPatten 1985; Ryan & Lafford, 1992), age of learner (Carmen & Simona, 2008; Guijarro-Fuentes & Geeslin, 2003), manner of acquisition (Maienborn, 2005), and location of acquisition (Guntermann, 1992). Little research has looked into the morphology of the verbs and how this also takes time for an L2 learner to master. This study shows how, if any, the morphological side of ser and estar may be playing a role in acquisition success during the earlier stages. Such
evidence would uncover important insights into which learning aspects of these two verbs should be given the most attention during early acquisition.

**Review of the Literature**

The literature that exists on Spanish *ser* and *estar* ranges from topics such as the historical development of the two verbs to L2 learners’ acquisition of the verbs. Much of the research can be categorized into a few broader areas of focus. These categories include the following: order of acquisition of *ser* and *estar*, acquisition in the study abroad context, semantic differences, morphological differences, acquisition in discourse, and children’s acquisition.

**Order of Acquisition**

VanPatten (1985) was the first researcher to study the acquisition of these Spanish verbs. He looked specifically at the order of acquisition of the verbs that learners tend to follow. The study showed that over time, *ser* had a very high accuracy rate among the participants, while *estar* had relatively lower accuracy. The research concluded that *ser* is acquired by L2 learners before *estar*, which is later supported by other researchers (Guntermann, 1992; Rodriguez Prieto, 2009).

VanPatten’s (1985) study outlined five stages of development that learners go through in acquisition of *ser* and *estar*. The first stage is the absence of a copula verb (e.g. *Juan alto*, ‘Juan tall’). The second stage is the overgeneralization of *ser*, followed by the use of *estar* in the progressive in the third stage. The fourth stage is the use of *estar* with locatives, and the final stage is the use of *estar* with adjectives of condition (VanPatten, 1985). Thus, after the beginning stages of acquisition of the copular verbs, a learner must acquire the uses and constraints associated with *estar*, while getting rid of the overextensions in their use of *ser*. The stages are particularly useful for this study to gage where the intermediate level learners fall in
this time-consuming acquisition process. For instance, learners generally do not entirely complete all of these stages of acquisition during the first two years of university level instruction (VanPatten, 2010, p. 33). Other research has focused on these stages of acquisition in varying contexts.

**Acquisition in Study Abroad Context**

VanPatten (2010, p. 32) noted how these stages have been corroborated by research with learners studying abroad. Neither studying abroad nor a speaker’s L1 seem to have any effect in altering these stages of acquisition, which remain consistent among learners. In one study abroad context, Guntermann (1992) analyzed data from L2 learners who had lived for a year in a Central American country. The findings showed that the topic of discussion influenced the speaker’s choice of verb. The proficiency level also played a role in verb choice, as shown by learners in the study abroad context. Lower level learners could define, describe, and identify with the verbs, which supports an overproduction of the verb *ser*. More advanced learners, however, could also use *ser* in passive constructions. The participants’ correct use of the two verbs showed improvement throughout the year abroad, which may be a result of influence from living in a native-speaking environment, although the acquisition process does not change (Guntermann, 1992).

Other research into *ser* and *estar* acquisition in the study abroad context was done by Ryan and Lafford (1992). Ryan and Lafford (1992) looked at VanPatten’s stages of acquisition in students studying abroad in Granada, Spain, whereas VanPatten (1985) looked at students studying in the foreign language classroom. The study was a longitudinal study were data was collected in the form of four oral interviews lasting from 15-30 minutes. The difference in location of acquisition gave the students in the study abroad environment more natural input than
those in the foreign language classroom. As a result, these students were able to adapt and make changes to their mistakes all throughout the day. This may be a reason why these students showed an earlier acquisition of *estar* (Ryan and Lafford, 1992, p. 721). Like VanPatten’s study, this paper’s study, is conducted with learners in the foreign language classroom. It is, therefore, important to keep in mind how results may differ depending on the learning environment of the participants.

**Semantic Differences**

Besides the order of acquisition of the verbs, other research has focused on the semantic functions of the two verbs. Finneman (1990) studied the use of *ser* and *estar* in terms of the learners’ orientation to acquisition. The learner can be classified as behaving in a form-based or a meaning-based orientation. Form-oriented learners use the marked form in formal domains of acquisition and favor the unmarked form in semantic domains. Meaning-based learners tend to do the opposite, favoring the unmarked form in formal domains and the marked form in semantic domains. The study found that the learner with more orientation to meaning used *estar* with higher accuracy. From this, the conclusion can be drawn that semantics seems to be more important than syntax when dealing with the distinction between the two copulas (Finneman, 1990). Whether or not the same can be said of morphology, though, is the object of this study.

On a similar topic, however, Perpiñán (2014) found that the complex semantics of *ser* and *estar* did not seem to be problematic for learners when given with simple syntax. The study used an oral production task with intermediate level learners. Results showed a delay in *estar* development just as other studies have shown, with attention focused on use with locatives and existential predicates.
Geeslin (2003) conducted a comparison of the copula choice between native speakers and advanced learners of Spanish. Using data from a contextualized questionnaire, the study allowed for the inclusion of native-speaker variation. By comparing the data between the two groups, Geeslin (2003) found that semantic and pragmatic features interacted to predict the appearance of the copula *estar*. Among the advanced learners, pragmatic constraints were applied in nearly all contexts. Native speakers, however, chose not to use pragmatic constraints in favor of semantic and lexical constraints, showing the importance of semantics overall in copula choice (Geeslin, 2003, p. 751).

In recent years, attention has been focused on defining the environments in which one verb is used over the other (Roby, 2009, p. 1). Roby’s (2009, p. 120-162) comprehensive overview of *ser* and *estar* gives a strong case for distinguishing the environments in which each of these verbs are to be used. Generally speaking, the common thread between previous theories on *ser* and *estar* seems to be that *estar* is temporally bound while *ser* is not (Luján, 1981; Maienborn, 2005; Schmitt, 2005).

Roby’s (2009) more complete approach states that copular opposition of *ser* and *estar*-predication exemplifies the universal distinction of [+ or – Perfective] aspectual values. These values are the same that are used to express the preterit and imperfect past tenses in Spanish. *Estar*-prediction is used to signify perfective states (+Perfective) while *ser*-predication denotes imperfective states (-Perfective). [+Perfective] events are those with implied beginning and ending points while [-Perfective] events signify habitual actions. By analyzing these verbs as aspectual morphemes, this broad functional feature can encompass the verbal tense system not only in Spanish, but also throughout the system of language (Roby, 2009, p. 120-162).
Understanding this distinction is helpful for native and nonnative speakers alike to determine *ser* or *estar* verb choice in any given context.

VanPatten (2010, p. 34) drew similar conclusions about the difference in the perfective natures of *ser* and *estar*. Based on the difference explained by Roby (2009), he concluded that for L2 learners, the perfective nature of *estar* is essentially what needs to be acquired. In general, featureless or unmarked aspects of language tend to be easier to acquire than those that are marked. *Ser*, therefore, is easier to acquire than *estar* due to its unmarked nature when talking about aspect. Instruction for L2 learners, then, should be focused on *estar* and its functions, since *ser* will take care of itself for the most part. This instruction, it is argued, should be given in the form of many contextualized examples in order to be exposed to a lot of proper uses of the verb (VanPatten, 2010, p. 36).

**Morphological Differences**

Rodriguez Prieto (2009) analyzed not only the semantic functions of the verbs, but also took into account the morphology of the verbs, as this study does. In his study, L2 learners’ oral and written production of the two verbs were examined in beginning level college students. The study made predictions about the Declarative/Procedural Model developed by Ullman (2001a, 2001b) using a morphological point of view of the acquisition of *ser* and *estar*. The procedural memory system is developed through higher automaticity, or greater practice with the L2, and thus advanced learners are the ones most likely to make more use of it. Declarative memory, on the other hand, is the type of memory used to learn memorized items, such as irregular verb forms.

The findings about these two systems as it relates to *ser* and *estar* play a role in this paper’s hypothesis about the morphological errors that learners commit. Among regular verb
forms, *ser* and *estar* accuracy was higher when learners were relying on declarative memory. Likewise, this study predicts that learners will commit more morphological errors with the verb *estar* over *ser* because the former verb occurs in a higher number of occurrences in the regular verb form. *Estar* is regular in the imperfect, future, and conditional tenses, whereas *ser* is only regular in future and conditional. The regular verb form is more difficult because it requires grammatical computations that rely on a learners’ procedural memory to be produced. Since *ser* has a higher number of irregular verb forms, it is predicted that fewer errors will be found with *ser* during acquisition. This is due to the learner’s reliance on the declarative memory system to produce the proper form over the procedural memory system (Rodriguez Prieto, 2009).

**Acquisition in Discourse**

Yet other studies have placed the *ser/estar* contrast as neither due to semantics nor morphology, but as a discourse-dependent phenomenon. Maienborn (2005) disagreed with previous attempts to distinguish the verbs semantically. The claim was made that oppositions such as “temporary vs. permanent” or “arbitrary vs. essential” do not adequately determine the use of *ser* or *estar*, but only provide a preference for one verb over the other.

Maienborn (2005) claimed that while event-based accounts of *ser/estar* fail, a discourse-based account is more successful at describing the copula’s use in context. In this proposition, *ser* and *estar* have the same lexical semantics; *estar* is the only one that differs. Using *estar* presupposes a relation to a precise discourse situation, whereas using *ser* does not make such a restriction. *Estar* is used to restrict to a particular topic situation, and *ser* is used when the speaker is remaining neutral to the specificity of the topic situation (Maienborn, 2005). Such a claim supports the hypothesis that L2 learners should show more errors with *estar*, given the fact that it is the discourse-dependent variant of *ser*. 
Children’s Acquisition

In an effort to improve L2 acquisition of these two verbs, still other research has looked at children’s acquisition of *ser* and *estar* in both bilingual and L1 speakers, from which insights can be gained for L2 adult acquisition. Garavitto and Valenzuela (2006) went so far as to propose that these two verbs may be vulnerable to fossilization, or incomplete acquisition for adult L2 learners. Nonetheless, among advanced L2 speakers, the research found that although semantic properties are vulnerable, they are not impossible to acquire. Carmen and Simona (2008) studied the acquisition of the two copulas by a bilingual child during the early stages over three years. They found that copular construction developed autonomously, but with a delay in the acquisition of *estar*, probably due to influence from English. Thus, the parallel between the child’s acquisition and the adult’s acquisition is evident.

Schmitt and Miller (2007) looked at monolingual Spanish children’s acquisition of the copulas in comparison with native adult speakers. Two experiments were used: an elicitation task and a picture matching task. The children’s abilities to distinguish between the two copulas was nearly adult-like, but they differed in their ability to restrict the domain of evaluation of each copula. Children appeared to be fairly restrictive in their use of *estar* while adults were not (Schmitt and Miller, 2007). This again shows a similarity to second language learners’ greater difficulty with *estar* acquisition over *ser*.

Guijarro-Fuentes and Geeslin (2003) studied age-related factors in copula choice as it relates to the Critical Period hypothesis. They analyzed the linguistic competence of advanced Spanish language learners while taking into consideration the age of acquisition of these learners. If the learners whose acquisition process began before puberty attained more native-like behavior, support for the Critical Period hypothesis was given. Age-related factors, however,
including age of learning, years of study, or chronological age, showed little prediction of copula use for non-native speakers. Age was not the only factor, therefore, that explained the variation between non-native speakers.

Moreover, even though these non-native speakers had studied the language for a long time, when compared with native speakers, they did not seem to meet the copula choice that the native speakers had on all levels (Guijarro-Fuentes & Geeslin, 2003, p. 106). As we can see from this study, even if the participants begin learning Spanish at varying ages from each other, this should not affect the results.

In sum, *ser* and *estar* have been studied in terms of the order of acquisition, context, semantics, acquisition in discourse, and age of acquisition. However, the morphology of *ser* and *estar* has not yet been given individual attention as it relates to acquisition.

**Methodology**

**Participants**

The group of participants involved in this study were 31 college students in intermediate level university Spanish courses. The intermediate level, or Spanish 201, was chosen because these students have already been introduced to *ser* and *estar* and the semantic differences that exist between them. Participants from this university learn both *ser* and *estar* in Spanish 101. Thus, the 201 students should, theoretically, understand the semantic differences between *ser* and *estar*.

At this level, the students have also been introduced to all of the basic Spanish tenses and aspects in the indicative mood (present, preterit, imperfect, and future), but have not yet learned the subjunctive forms. They should have a working understanding of Spanish vocabulary and
grammar sufficient enough to complete the study and be able to focus primarily on the proper verb usage.

The participants were all native English speakers, and most of them began studying Spanish at the high school level. Of the 31 total students, ten were male and 21 were female. The participants ranged from 18 to 25 years of age, with the majority being 19 years of age. Thirteen out of the 31 students were pursuing a Spanish minor, and none of the participants were majoring in Spanish. Twenty out of the 31 students stated that their reason for studying Spanish was because they were interested or wanted to be bilingual for more job opportunities. Eleven out of the 31 stated that their reason for studying Spanish was due to a degree requirement. Twenty-two of the participants reported having spent four to six years studying Spanish, with four participants studying Spanish for seven years or more and the remaining five participants for three years or less. Nineteen participants had taken a total of five Spanish courses at the high school level or above, including their current course. Eight reported taking six or seven classes. One student reported taking nine classes, another student had taken three, and the last student had four Spanish classes. None of the participants had ever studied or lived in a Spanish-speaking country.

Instrument

The instrument was a written test similar to the idea used in previous studies by Garavitto and Valenzuela (2006) and Schmitt et al. (2004). While some studies on ser and estar have used oral production tasks, this study used a written test in order to more easily focus specifically on the morphology or the semantics of the verbs. The participants took the test during their regular academic class period. The researcher administered the test, which took about 20 minutes by the time all of the participants had finished.
The test began by asking for basic information from the participants such as gender, age, major, and whether or not they had spent time studying or living in a Spanish-speaking country. The rest of the test was divided into two parts, with 14 questions concentrated on morphology in part one and 14 questions directed at semantics in part two. Each section contained or required verbs in the present, preterit, imperfect and future tenses. No subjunctive forms were used since the students at this level were not familiar with these forms yet. The participants were instructed to complete the two parts separately. That is, they were not to look back at part one after they had moved on to part two. This was so that the participants would not use the information in part one of the test to help them in figuring out the answers in part two.

A native Spanish speaker from Venezuela aided in piloting the test to evaluate the clarity of verb choice for each of the questions before administering it. This was to ensure that there was no ambiguity over which verb should be used in each of the questions. No vosotros (second person plural) forms were used on the test due to the fact that not all the students had been taught the vosotros forms. The question format for each of the sections on the test is outlined below with an example shown. (See Appendix A and B for the complete test and answers).

**Morphology Test.** The first set of 14 questions focused on the participants’ ability to correctly produce the morphological forms of *ser* and *estar*. These questions were in the form of a production task in which the participants had to write the correct verb form of either *ser* or *estar*. Here, the participants were given the correct verb to use, and they were to conjugate it correctly based on the context. They were instructed to use the verb in parenthesis and put it in the correct form to complete the sentence.

1. Miguel ______________________________ (ser) mi hermanito, y él tiene cinco años.
‘Miguel is (es – third person singular present tense) my little brother, and he is five years old.’

The sentences triggered conjugations in the present, past, and future tenses, all of which the students had been taught in previous semesters or were expected to already be familiar with. Enough context was given in each sentence to determine what tense the verb should be conjugated in. There was only one tense in each sentence that made sense based on the context of the sentence. For each tense, there were the same number of sentences for each verb. For example, for present tense, there were two sentences using ser and two sentences using estar. The same was true for imperfect and preterit tenses, and future tense had one sentence for each verb.

By keeping the opportunity to conjugate each verb into each tense the same, this helped control for variation in conjugation difficulty based on the tense of one verb over another. Having one sentence in present estar without another sentence in present ser, for example, might give an inaccurate picture of participants’ mistakes with ser and estar. If tenses were not equal, one verb might show more mistakes than another simply because that verb was required to be conjugated into less familiar tenses than the other verb.

Similarly, there is a wide variety of persons in this section. By keeping a variety of persons, participants must know all of the forms of the verb, not simply one person of the verb. For example, a participant may know how to use estar in third person present, but could make an error when a sentence requires estar to be conjugated in first person present.

**Semantic Test.** Part two of the test was a set of 14 questions that focused on the learners’ ability to distinguish the semantic differences between ser and estar by means of a multiple choice task. A basic context was given for the participants for each of these questions.
The participants were then instructed to select the most appropriate verb for the sentence, either *ser* or *estar*, both of which were already conjugated in the appropriate form based on the context.

(2) Saqué una nota mala en mi examen. Todavía ___ muy enojada.

‘I got a bad grade on my exam. I ___ still really mad.’

a. estoy (first person singular *estar*)

b. soy (first person singular *ser*)

As in the morphology section, this semantic section also had the same number of examples for each verb in each tense. *Ser* and *estar* were each used two times in the present, imperfect, and preterit tenses, and one time each in the future tense. The instructions stated that choice (a) was the *estar* form, while choice (b) was the *ser* form. The multiple choice answers were left in their correctly conjugated forms because the sentences require an inflected form. Therefore, this tested the learner’s ability to identify the correct form in its correct conjugation.

Furthermore, the type of usage of *ser* and *estar* varied throughout the section. That is, the sentences requiring *estar* were not all using *estar* to refer to a location, for example. Rather, *estar* was used in sentences for topics including location, conditions, and emotions. In this way, the learners were tested on their semantic knowledge of *estar* in all of its common uses, not just a select few. Likewise, *ser* was used in sentences with topics including character qualities, occupation, time, origin, relationships, and events in order to tests the learners’ overall semantic knowledge of the verb.

In review, there were a total of three variables: the test, the verbs and the scores. The test (part I and part II) and the verb (*ser* and *estar*) were the two independent variables while the score was the dependent variable. If the results show more errors in the morphology section of the test (part I) than in the semantic section of the test (part II), the morphology of the verbs will
be the more difficult concept for intermediate learners. However, if more errors appear in the
semantic section of the test than in the morphology section, the reverse will be true – that
intermediate learners struggle more with the semantic differences of the verbs than the
morphological differences.

**Results**

The tests were graded by the researcher and the participants’ errors were tallied. Any
errors made in part one of the test were categorized as morphological errors, and any errors made
in part two of the test were categorized as semantic errors. Statistical analysis of the data was
done by using a two-way repeated-measures ANOVA on SPSS (version 23).

One further note on the scoring process is that preterit versus imperfect errors were not
marked wrong in section one. These types of errors were considered to be more semantic than
morphological, and semantics is not what part one intended to test. Therefore, if a student wrote,
as in question three, *Anoche ustedes estuvieron* (third person plural of preterit tense) *en el cine*,
this was counted as correct. If the student wrote, *Anoche ustedes *estaban* (third person plural of
imperfect tense) *en el cine*, this was also counted as correct (although technically incorrect).
However, if the student wrote something such as *Anoche ustedes estaba* (third person singular
imperfect), this was counted as an error. Therefore, if the person and conjugation were correct,
both preterit and imperfect were accepted. This was to ensure that only morphology was being
tested in the first section, while still including all of the possible tense conjugations.

Table 2

*Means and Standard Deviations for the Tests and Verbs*

<table>
<thead>
<tr>
<th></th>
<th>Morphology</th>
<th></th>
<th></th>
<th>Semantics</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estar</td>
<td>Ser</td>
<td>Over-all</td>
<td>Estar</td>
<td>Ser</td>
<td>Over-all</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>2.87</td>
<td>2.81</td>
<td>2.84</td>
<td>4.77</td>
<td>5.03</td>
<td>4.90</td>
</tr>
<tr>
<td><strong>SD</strong></td>
<td>1.28</td>
<td>1.90</td>
<td>1.60</td>
<td>1.28</td>
<td>1.43</td>
<td>1.34</td>
</tr>
</tbody>
</table>
Table 2 reports the means and standard deviations for the total correct answers of the two tests: morphology and semantics. The greatest mean was shown for semantics *ser* \((M = 5.03, SD = 1.43)\). Semantics *estar* had a mean of 4.77 and a standard deviation of 1.28. Morphology *estar* had a mean of 2.87 and a standard deviation of 1.28. Finally, morphology *ser* had the smallest mean \((M = 2.81, SD = 1.90)\). Comparing the two tests (totals) overall, semantics had the higher mean score \((M = 4.90, SD = 1.34)\) than morphology \((M = 2.84, SD = 1.60)\).

Table 3 shows the results of the two-way repeated measures ANOVA. The between-subject independent variable (test) showed the main effect difference for morphology and semantics as significant, \(F (1, 60) = 38.52, MSE = 132.13, p = .000, \eta^2_p = .391\). The within-subject independent variable (verb) showed that the main effect difference between *ser* and *estar* was not significant, \(F (1, 60) = .277, MSE = .290, p = .601\). The interaction effect between the verb and test did not show significance either, \(F (1, 60) = .769, MSE = .806, p = .384\). Given these results, each of the three research questions can now be addressed in turn.

1.) Do L2 Spanish learners at this level commit more morphological or semantic errors involving the verbs *ser* and *estar*?
To address the first research question, the between-subjects variable was found to be the only significant variable. The anticipated results were that the participants would show a higher number of semantic errors in comparison with morphological errors on the test. Although they do not have to produce anything themselves in the semantic section, distinguishing the meaning between the two verbs was anticipated as being more difficult than conjugated the copulas to the correct forms due to a lack of transfer of this knowledge from their L1. Nevertheless, the results showed many more errors made in the morphology section of the test (with participants averaging 5.68 questions correct out of all 14) than errors made in the semantic section (with an average of 9.81 questions correct out of the 14). Thus, the learners seemed to struggle more with writing the proper conjugation of the verb than in choosing the correct verb to use.

Figure 1. Comparison of participant's total correct answers on each test

Figure 1 displays the total number of correct answers by each participant for each question of the two tests. The figure gives a visual display of the significant difference that was found between the average number of questions correct on each section. The semantic test is noticeably higher overall than the morphology test.
These findings may relate back to Rodriguez Prieto’s (2009) idea on the Declarative/Procedural Model. The semantic portion of the test was simply memorized knowledge, such as knowing that *ser* is used to talk about someone’s origin and not *estar*. This is classified as declarative memory, and generally is considered more basic than procedural memory. The morphological section of the test, however, was more procedural, in that the students had to do some higher-order thinking to conjugate the verb to its proper form. Therefore, they made more errors in the morphology section despite not having the semantic knowledge from their L1 in the semantic section.

To support the idea, many errors were found in the morphology section that have to do with a lack of procedural knowledge. Specifically, the learners seemed to struggle with choosing the correct tense, especially the past tense. In many instances, they did not seem to understand the sentence to know which tense was required based on the context. The learners also showed many errors in matching the correct person between the subject and the verb. Below are a few examples of these instances, taken from the data:

1. Anoche ustedes *está* en el cine porque les vi.

Example one shows two problems that arise. First, the verb is conjugated into present tense when the sentence calls for a past tense verb (*Anoche, ‘Last night’*). Second, the subject is *ustedes*, which is third person plural. However, the verb written here is in the third person singular form.

2. A la fiesta ayer, tú *eres* el primero en llegar.

Here, the learner was able to match the subject, second person singular, with the second person singular form of the verb. However, they did not conjugate the verb to the correct tense. Again, past tense was needed (*ayer, ‘yesterday’*), but present tense was written.
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(3.) El concierto fue en la escuela anoche. El concierto *soy a las ocho.

In this example, the tense and person are both incorrect. The context of the first sentence clearly indicates past tense; however, the verb written is in present tense. The subject is third person singular (El concierto, ‘the concert’), but the verb is written in first person singular.

(4.) La semana pasada, yo *estuvo de vacaciones.

In this case, the tense is correct, however the learner seems to mix up the first and third person forms. Instead of writing the correct form estuve to match the first person singular subject (yo, ‘I’), the learner writes the third person singular form estuvo.

(5.) En el pasado, nosotros *éremos liberales, pero no ahora.

This example does not have a person or tense error. The verb uses the correct person (first person plural) and the correct tense (imperfect). However, the learner seems to forget the proper spelling of this verb form in imperfect and writes *éremos instead of éramos. This clearly shows a morphological error, as some other tenses in Spanish have this –emos ending for first person plural.

One final explanation for the different scores between the two tests relates to the nature of the tests themselves. Whereas the morphology section was fill-in-the-blank, the semantic section was multiple choice. Thus, the multiple choice section does not account for correct answers by chance. Learners may not have known which verb to use in actuality, but more questions may have been correct in this section due to random guessing. If this is the case, the multiple choice task would appear as easier for the learners and have a lower percentage of errors than the production task.
In any case, it seems conclusive from the comparison of scores on the two tests that L2 learners of this level struggle more with the proper conjugation, or morphology of the verb, than the semantics of understanding when each verb is to be used.

2.) Do Spanish L2 learners commit more morphological errors involving *ser* or *estar*?

Among the errors that were made morphologically, it was expected that there would be more errors with the verb *estar* than with the verb *ser* due to the longer time it takes to process regular verb conjugations (procedural knowledge) over irregular (declarative knowledge). Although this factor was not significant ($p = .601$), the average scores showed the opposite of this prediction. The verb *estar* was correct slightly more times in the morphology section than *ser* ($estar \ M = 2.87, \ ser \ M = 2.81$).

If more errors really are made with *ser*, this would contradict the common understanding of a delay in *estar* development among L2 Spanish learners. Some research (Ruby, 2009; Maienborn, 2005) claimed that *estar* is the only verb that needs to be explicitly ‘acquired,’ as *ser* does not have the restrictions that *estar* has. However, this section showed that more errors were made with the morphology of *ser* than with *estar* when given an equal number of conjugations to perform for each verb in each tense. This may suggest that *ser* is more difficult to acquire for learners than what was previously thought.

Reversing Rodriguez Prieto’s (2009) theory, *estar* may have shown more accuracy than *ser* because of its higher occurrence in the regular verb forms. Many of the learners seemed to struggle to remember the proper irregular conjugations of *ser*, which simply need to be memorized. Nonetheless, the most commonly missed questions in the morphology section did not seem to support this claim much. Only one of the participants was able to get the following two questions on the test correct (shown with the verbs *ser* and *estar* respectively).
Interestingly, both of these sentences require the future tense. Most all of the participants, however, used the present tense when answering these two questions. One student used the future tense in number ten, but conjugated the verb into third person singular estaré, instead of the third person plural to match the subject. Both of these questions do not mark the future tense until after the verb at the very end of the sentence. It could be speculated, then, that the learners did not finish reading the sentences in their entirety before answering these two questions. Therefore, they missed the full context of the sentences and assumed the sentence to be in the present instead of the future tense.

Nevertheless, the hypothesis that the estar copula is more difficult for learners because it occurs more in the regular form does not have to be disregarded all together. It still may be relevant, just not in this particular case. The hypothesis may not be relevant for the ser / estar distinction because estar occurs as a regular verb form in only one more tense than ser does. As mentioned before, estar is regular in imperfect, future and conditional, whereas ser is regular only in future and conditional. Having only one more tense in regular form, the imperfect tense, may not be enough for estar to show more errors than ser. If there were two such verbs where one was conjugated almost exclusively in regular form and where the other was almost always irregular, the results may be different than what is found in this test. L2 learners might indeed use the highly irregular verb more accurately than the regular verb due to relying on their declarative memory system.
Moreover, the learners in this case may not have had enough experience yet with the irregular verb forms of *ser* and *estar* to rely on their declarative memory system. Using a slightly more advanced group of learners may reveal different results more in line with the hypothesis. The fact that this group of learners made more errors with *ser*, however, calls question to the previous research that showed earlier acquisition of *ser* than *estar* among L2 learners.

3.) Are L2 intermediate Spanish learners’ semantic errors more likely to involve choosing *ser* over *estar* or vice versa?

For semantic errors, it was anticipated that more errors would likely involve choosing *ser* where *estar* is actually needed than in choosing *estar* were *ser* is actually needed. This is because, according to previous research (VanPatten, 1985), *ser* seems to be more commonly used overall among L2 learners in the beginning stages. Given the choice of which verb to use, as this section does, it was, therefore, predicted that learners will more often choose *ser*.

According to the averages, learners were able to choose *ser* correctly a slightly higher amount of the times than they were able to choose *estar* correctly. Thus, they indeed made more errors in choosing *ser* where *estar* was actually the correct copula (*Estar* M = 4.77, *Ser* M = 5.03). The difference here (.26) is not statistically significant, however, and is too small to draw many conclusions. Nonetheless, it would be interesting to see if adding more participants would yield similar results, as these results seem to agree with what previous research would predict to be the case.

Only one of the two most commonly missed questions in this section supported the results. First, question number five was answered correctly by only 14 participants. This question goes against the results and is discussed below.
(5.) Juan tuvo una fiesta anoche. La fiesta ___ en la casa de Juan.

‘Juan had a party last night. The party ___ at Juan’s house.’

a.) estuvo   b.) fue

The correct answer here was (b) fue. The reason for this common mistake is fairly usual for learners of this level. Estar is generally used to describe a location, such as, ‘The restaurant is in Madrid.’ The verb in this sentence would be estar, because it is used to describe the location of the restaurant. It is likely that the learners chose (a) estar in question five for this reason. If this were indeed the case, the verb would be describing the location of the ‘party.’ Nonetheless, there are certain cases when ser must be used instead of estar to describe a location, and this sentence is an instance of that.

For events, ser is used instead of estar. For example, a sentence like, ‘The exam (event) is in the library,’ would use the verb ser. However, this same sentence could take the verb estar and acquire a different meaning, such as, ‘The exam (test) is in the library.’ This sentence refers to a physical test that is located in the library, not an event, and would therefore use the verb estar for location instead of ser. VanPatten (2010) mentions adjectival overlap between the two verbs, but does not discuss this particular instance of overlap between the verbs. This ‘event’ exception is easy for second language learners to forget, and early on, they may tend to use estar for everything referring to location. This would explain the reason for the higher number of errors in question five.

Second, question 14, shown below, was also missed by 17 of the participants. However, this error was a result of choosing ser where estar is actually needed and so is more in-line with the findings.

(14.) Juan no ___ en clase ayer.
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a.) estuvo  b.) fue

The correct answer here was (a) estuvo. Interestingly, this was an instance where estar was used with a locative, yet learners were still unable to choose the correct verb. The fact that more participants chose (b) fue, may be an overextension of the use of ser, as was predicted for this section. However, it is unclear why learners would miss both question five and 14. Since question five was missed a lot, it would make sense that learners would, in turn, get question 14 correct. Since this was not the case, however, it may be that these learners simply struggle with ser and estar use when it comes to locations.

On the other hand, questions one, seven, and ten showed that the majority of learners were able to correctly use estar with adjectives. Because the learners were able to use estar correctly with adjectives, it seems that they have past the fifth and final stage of acquisition of ser and estar that VanPatten (1985) outlined. Anyways, the idea that learners tend to overuse ser and acquire this verb before estar is upheld in this section.

Conclusion

This study looked at second language intermediate level learners’ errors with the Spanish copula verbs ser and estar to discover the extent that learners make morphological errors in comparison with semantic ones. Although some learners show errors with semantics, the findings interestingly point to more errors due to the morphology of the verb. There are many implications from this study in regards to ser and estar acquisition.

As Ryan and Lafford (1992, p. 721) pointed out in their research, knowing phenomena such as the natural order of acquisition of ser and estar offers important pedagogical insights. Given that learners seem to acquire these copulas in a certain order suggests that the verbs should also be introduced to L2 learners in the most natural order possible. Practice should be given to
first reinforce the forms that research has shown to be the ones acquired at the beginning stages. Although not significant, this study seems to support ser acquisition, and therefore, instruction, before estar acquisition, as other research has shown.

Results of this study also provide insight to the fact that morphological errors with ser and estar must be more of a problem past the beginning levels of acquisition than what has previously been accounted for. In this way, more overt practice focused solely on morphology early - on may benefit the learners. Among adult learners, it seems that their morphological knowledge may need to catch-up with their semantic knowledge. Whereas learning the differences in use between ser and estar is achieved quickly, learning how to put these verbs in their proper forms requires much more practice over a longer period of time. Thus, in-depth morphological concentration on these verbs is still necessary for the advanced stages as well.

VanPatten (2010) suggested that the key for L2 semantic improvement with these verbs is through contextualized examples. The more the learners are able to listen to where the verbs occur in natural speech, the faster they will be able to understand and properly use the two verbs. It can be argued that the same is true for morphological improvement, given that the majority of the errors that the learners made were due to a lack of contextual knowledge.

Results also showed, contrary to what was predicted, that learners make more errors morphologically with ser than with estar. Ser may actually be the verb that learners should be focused on during acquisition. Maienborn (2005) made a case for a technique whereby only the environments which use estar need to be explicitly taught to L2 learners since all the mistakes are supposedly made here rather than with ser. Evidence from this study suggests that many mistakes still seem to be made with ser, and so it should continue to be explicitly taught in conjunction with estar.
One important limitation that must be taken into consideration when doing a study such as this, however, is the influence that classroom learners receive from their textbooks and the course outline. These two factors play a large role in terms of how the L2 learners will acquire the copula verbs. Some textbooks and syllabi introduce *ser* and *estar* at the same time, while others introduce *estar* much later. There is difficulty, then, in being able to generalize the results to account for all intermediate level learners due to the variation in how these verbs are introduced. Such differences no doubt have a strong influence on a learner’s acquisition process and success.

While this study compared the different effects of semantics and morphology during L2 acquisition of *ser* and *estar*, other future research may do the same, but focus on the effects between varying linguistic properties. Finneman’s (1990) study did this in comparing semantics importance with syntax and found semantics to dominate. Whether or not morphology is more important than syntax as it relates to these two verbs is such an area that could be compared. Further studies may also relate this topic to psycholinguistics. A study on the tradeoff that learners must make between focus given to semantics and focus given to morphology is one such area.
References


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L2 ERRORS WITH SER AND ESTAR


Appendix A

Instrument

**General Information:**

1. Native Language: ______________________________
2. Age: ________________
3. Gender: Male Female
4. Major and Minor: _____________________________________________________
5. Reason for studying Spanish:
   ___________________________________________________________________
6. Time spent studying Spanish: ____________ years ____________months
7. Total number of academic Spanish classes taken (high school level or above, include current class): ________________
8. Have you studied or lived in a Spanish speaking country? Yes No
   If yes, how long were you there? ______________________________________
Part I

Fill in the blanks of the following sentences with the correct form of the verb in parentheses. Please do not leave any of the blanks empty.

1. Miguel ______________________________ (ser) mi hermanito, y él tiene cinco años.

2. Tengo frío, tengo sueño, y tengo sed. ______________________________ (estar) de mal humor.

3. Anoche ustedes ______________________________ (estar) en el cine porque les vi.

4. Pedro tocó el gato, pero el gato no se movió. El gato ______________________________ (estar) muerto.


7. Usted ______________________________ (ser) profesor algún día.

8. Ahora, mi madre y yo ______________________________ (ser) tradicionales.

9. Cuando entré, vi que los hombres ______________________________ (estar) de pie frente a la mesa.

10. Sus familias ______________________________ (estar) en Madrid mañana.

11. ¿Qué pasa? ¿______________________________ (estar) tú bien hoy?
12. A la fiesta ayer, tú ________________________ (ser) el primero en llegar.

13. La semana pasada, yo ________________________ (estar) de vacaciones.

14. En el pasado, nosotros ________________________ (ser) liberales, pero no ahora.

STOP: This is the end of Part I. Do not return to Part I after moving on to Part II.
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Part II

Choose the correct verb to complete each of the sentences. The first verb (a) is the estar form. The second verb (b) is the ser form. Only one of the two terms is correct in each sentence. Please answer all of the questions.

1. Saqué una nota mala en mi examen. Todavía ___ muy enojada.
   a. estoy
   b. soy

2. La ventana ___ abierta cuando empezó a llover.
   a. estaba
   b. era

   a. estará
   b. será

4. ___ las dos y media de la tarde.
   a. Están
   b. Son

5. Juan tuvo una fiesta anoche. La fiesta ___ en la casa de Juan.
   a. estuvo
   b. fue

6. María y yo estudiamos mucho. ___ preparadas para nuestro examen hoy.
   a. Estamos
   b. Somos
7. Ellos ___ cansados mañana.
   a. estarán
   b. serán

8. ¿Cuál ___ tu trabajo ahora?
   a. está
   b. es

9. Cuando ___ niña, siempre íbamos al lago de mi abuelo.
   a. estaba
   b. era

10. María y yo ___ enfermos el sábado pasado.
    a. estuvimos
    b. fuimos

11. En la fiesta ayer, mi amigo les preguntó a Rosa y a Pedro si ___ casados.
    a. estaban
    b. eran

12. En el pasado, mi esposa ___ médica, pero no ahora.
    a. estaba
    b. era

    a. estuvo
    b. fue

14. Juan no ___ en clase ayer.
    a. estuvo
    b. fue
Appendix B

Instrument Answers

Part I (Morphology)

1. es
2. Estoy
3. estuvieron
4. estaba
5. era
6. fue
7. será
8. somos
9. estaban
10. estarán
11. Estás
12. fuiste
13. estuve
14. éramos

Part II (Semantics)

1. estoy
2. estaba
3. será
4. Son
5. fue
6. Estamos
7. estarán
8. es
9. era
10. estuvimos
11. estaban
12. era
13. fue
14. estuvo