The Role of Explicit Instruction in the L2 Acquisition of the *a*-personal

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1. Introduction

Regardless of theoretical position, all second language acquisition (SLA) researchers agree that input is essential for SLA. However, many studies find that input in the form of positive evidence is not sufficient for successful SLA and that some focus on language form is necessary. That is, learners may benefit from some type of form-focused instruction, defined by Spada (1997) as consisting of “events which occur within meaning-based approaches to L2 instruction in which a focus on language is provided in either spontaneous or predetermined ways” (p. 73). Form-focused instruction has been proven effective in many face-to-face classroom settings (R. Ellis, 2001, 2002; Lyster, 2004a, 2004b), but the advent of computer-assisted instruction (CAI) has enticed many language programs to offer hybrid, or technology-enhanced language courses, in which grammar instruction is offered via self-instructional units online. In such courses, the face-to-face portion of class time is reserved for learners to engage in communicative activities in the L2. It has not been shown whether grammar instruction involving explicit rule presentation and practice with feedback is effective as a form-focused instructional technique in these hybrid delivery contexts. This study seeks to answer this question, focusing on the instruction of one particularly problematic structure for native English-speaking L2 learners of Spanish, Differential Object Marking, or *a*-personal.

2. Explicit rule presentation and negative evidence in L2 acquisition

One central issue in SLA theory-building is determining what types of linguistic input are most beneficial for second language (L2) learners. On one hand, some researchers argue that negative evidence, information regarding the impossibility of certain linguistic structures in the language being acquired, is not necessary (and perhaps not consistently available) for first language (L1) acquisition. They maintain that Universal Grammar (UG) drives L1 acquisition solely on the basis of exposure to positive evidence, or exemplars of possible utterances in the language, which are present in all grammatical speech. However, research on L2 acquisition (especially in immersion contexts) has suggested that positive evidence alone may not be sufficient for the acquisition of certain L1-L2 contrasts or structures that are not present in the L1 (Trahey & White, 1993; White, 1989, 1991); for discussion, see Lightbown (1998) and Long (1996). That is, learners may benefit from some type of form-focused instruction.

Following Sanz and Morgan-Short (2004), form-focused instruction can involve providing learners with explicit information before or during exposure to L2 input, by means of either grammatical explanation or negative evidence in the form of corrective feedback (CF). Much research has investigated the role of explicit grammatical explanation or rule presentation in SLA, generally finding it beneficial (Alanen, 1995; Carroll & Swain, 1993; de Graaf, 1997; DeKeyser, 1995; N. Ellis, 1993; Nagata, 1993; Nagata & Swisher, 1995; Robinson, 1996, 1997; Rosa & Leow, 2004a, 2004b). As far as CF is concerned, in both cognitive psychology and SLA, feedback has been directly linked to the process of hypothesis formation and testing, which has been shown to facilitate restructuring and system learning (e.g., Rosa & Leow, 2004b; Rosa & O’Neill, 1999). Furthermore, Russell and Spada’s (2006) meta-analysis synthesizes the research on CF to date, finding overall support for the effectiveness of explicit corrective feedback for L2 acquisition of morphosyntax, as does R. Ellis, Loewen, and Erlam’s (2006) review of studies. This finding suggests that even if negative evidence is
not crucial for acquisition of some features of L2 grammar, it does facilitate SLA by speeding up the process of acquisition, as does explicit grammatical explanation or rule presentation.

3. Differential Object Marking

A distinctive feature of Spanish grammar is that some direct objects are complements of the dative preposition *a*. In general, objects that are specific and animate are obligatorily marked with this preposition, as shown in (1), while other objects are obligatorily unmarked, as shown in (2) and (3):

(1) a. Juan llamó *a* María. [animate, specific]

   Juan called prep María
   ‘Juan called María.’

   b. *Juan llamó María.

(2) a. El gobierno destruyó la economía. [-animate, specific]

   ‘The government destroyed the economy.’

   b. *El gobierno destruyó *a* la economía.

(3) a. El ejército destruyó una ciudad. [-animate, -specific]

   ‘The army destroyed a city.’

   b. *El ejército destruyó *a* una ciudad.

In some contexts, grammatical sentences are possible with either a marked or an unmarked animate object, and the use of the preposition *a* determines whether a specific or nonspecific reading is possible, as shown in (4) below.

(4) a. María necesita un abogado. [+animate, -specific]

   ‘Maria needs a lawyer.’ (any lawyer)

   b. María necesita *a* un abogado. [+animate, specific]

   Maria needs prep a lawyer
   ‘Maria needs a lawyer.’ (a particular lawyer)

   Sentence (4a), with an unmarked object, provides the [-specific] interpretation that María needs any lawyer she can find, not one particular lawyer. However, the preposition *a* must be used if a [+specific] interpretation, that María needs a particular lawyer, is intended, as in the case of (4b).

The exact semantic and syntactic conditions regulating when accusative objects should be marked with the dative preposition *a* are not entirely clear in the linguistics literature (Aissen, 2003; Leonetti, 2003; Torrego, 1998; Zagona, 2002). Furthermore, there are several counterexamples to the generalization that only specific and animate objects are marked with the preposition *a*. First, nonspecific negative quantifiers like *nadie* ‘nobody’ always mark objects with *a* (*No vi *a* nadie. ‘I didn’t see anybody.’). Second, inanimate objects can be marked with the preposition *a* if the subject is also inanimate (*La calma precede a la tormenta. ‘The calm precedes the storm.’). Third, with animal direct objects, use of the preposition *a* is optional (*Mató el/mosquito. ‘He/she killed the mosquito.’).

While the facts of Differential Object Marking in Spanish are quite complex, current analyses maintain that semantic notions like specificity, agentivity, telicity, and topicality seem to play a role in explaining the optionality of the preposition *a* with animate and inanimate objects. For example, Torrego (1998) proposes that Differential Object Marking is an instance of marked or inherent accusative case and that the dative preposition is a functional category in Spanish. However, since this study focuses on L2 learners’ acquisition of only the clear [+animate, +specific] cases of Differential Object Marking, it is not necessary to present the specific details of Torrego’s analysis here. Crucially,
such Differential Object Marking does not exist in English, the native language of the learners tested in our study.

3.1 Acquisition of Differential Object Marking

Given the semantic complexity and ambiguity with respect to its use, how do children manage to acquire Differential Object Marking in Spanish? There is virtually no research on the acquisition of these prepositional direct objects, with the exception of a recent study by Rodríguez-Mondoñedo (2006). Rodríguez-Mondoñedo conducted an analysis of the spontaneous production of 4 Spanish-speaking children (between the ages of 0;9 and 2;11) from the CHILDES data base (López Ornat, Linaza, Montes, and Vila corpora). All sentences containing V-O structures were analyzed. From a total of 991 examples, the children made a total of 17 errors (8 cases of a present but not required and 9 cases of a omitted when required with animate and specific objects). This amounts to a 98.38% accuracy rate with Differential Object Marking before age 3. Therefore, this study suggests that Spanish-speaking children acquire the semantic constraints on the distribution of this preposition with direct objects easily and quickly and have an adult grammar very early.

The situation for L2 acquisition is different, however, especially when the native language the learners speak does not mark direct objects the way Spanish does. It is clear both from language instructors’ anecdotal evidence and SLA research findings (Johnston, 1995; VanPatten & Cadierno, 1993) that Differential Object Marking is a difficult structure for English-speaking L2 learners of Spanish to acquire despite its frequency in the L2 input. Perhaps, this difficulty is partially due to the polyfunctionality of the dative preposition a, which also appears with ditransitive verbs that take indirect objects (Juan le dio un libro a Pedro ‘Juan gave a book to Pedro’), and with gustar-type psychological verbs that are inherently marked with dative case (A Juan le gusta este libro ‘Juan likes this book’). To date, there has been just one empirical SLA study to investigate the effects of instruction on Differential Object Marking (Farley & McCollam, 2004). At the outset of the study, participants were classified as either developmentally “ready” or “unready” to acquire DOM (Johnston, 1995; Pienemann, 1998). Twenty-nine adult learners of Spanish enrolled in a fifth-semester course were randomly assigned to either a control group or to one of three instruction groups that provided varying degrees of explicitness and practice with DOM. Learners’ knowledge of DOM was assessed based on their performance on a pre-test and immediate post-test consisting of a grammaticality judgment task (GJT) and a picture description task. The study’s results showed that readiness did not constrain learners’ acquisition of the structure, since learners in all instruction groups improved in their ability to recognize and produce grammatical sentences on the post-test compared to the control group that received no instruction on the form. However, the small number of participants who completed the pre-test, instruction, and post-test (fewer than 10 per group) limits the generalizability of the study’s findings and necessitates further research on the L2 acquisition of DOM.

4. Research question

Given the limited research into the acquisition of Differential Object Marking in Spanish, particularly in classroom L2 contexts, this study set out to investigate whether explicit instruction and practice (with explicit feedback) helps L2 learners of Spanish to distinguish between grammatical and ungrammatical sentences involving Differential Object Marking.

5. Theoretical assumptions and hypotheses

We assume the Full Transfer/Full Access Hypothesis (Schwartz & Sprouse, 1996), according to which the initial state of L2 acquisition is the entirety of the L1. That is, especially at earliest stages of development, L2 learners impose the structural architecture of their L1 onto the L2, and may filter out relevant L2 input accordingly. Only when L2 learners realize (though exposure to positive evidence or through instruction) that the L1 structure can no longer accommodate L2 input, do they restructure their interlanguages accordingly and resort to other options (i.e., parameter values, features, functional categories) made available by Universal Grammar.

Differential Object Marking is an ideal structure to test for the effects of explicit rule presentation and negative evidence in SLA because it is nonexistent in the learners’ L1 (English), and although it is
frequent in the L2 input, its use is ambiguous since it is conditioned by a variety of syntactic and semantic conditions.

Based on these theoretical assumptions, we hypothesize that, in general, low-intermediate English-speaking learners of Spanish will be quite inaccurate with DOM and will assume that Spanish, like English, does not mark direct objects with a dative preposition. If instruction helps them notice the presence of a in the input, then they will restructure their interlanguages accordingly.

6. The study

6.1 Participants

In this study, there was a native speaker baseline group that consisted of 12 native Spanish speakers from a variety of countries. This group was included to corroborate that native speakers have clear, determinate judgments with respect to the grammaticality and distribution of DOM. The experimental participants were 60 native English-speaking low-intermediate L2 learners of Spanish enrolled in a hybrid delivery fourth-semester language course. In the course, students reviewed grammar concepts and completed practice exercises online prior to face-to-face class meetings, where they engaged in communicative activities. It is important to note that the language background of the participants was carefully controlled to ensure as homogenous a sample as possible. As such, we can make no predictions about learners with early exposure to Spanish (heritage learners), although we have a study in progress that will examine the heritage language acquisition (HLA) of DOM.

Half of the L2 learners (N=30) received instruction on the targeted structure, whereas the other half (N=30) served as a control group, taking both the pre-test and post-test but not receiving instruction on the targeted structure.

During the period of the study, the a-personal was not formally presented in class, and related coursework did not focus on that structure. In fact, the a-personal is noticeably absent from the intermediate-level textbook used in the course. It is mentioned only in passing in the section on direct object pronouns, and even then just a two-line explanation is given.

6.2 Tests

Written grammaticality judgment tests (GJTs) were used to elicit participants’ knowledge of the a-personal. Two versions of the GJT were prepared, one for the pre-test and one for the post-test, differing only in the order of the sentences. Each GJT contained 75 sentences, 20 of which targeted the a-personal. Of those sentences, 10 were grammatical and 10 were ungrammatical, and there were an equal number of sentences with animate and inanimate objects (Table 1). The remaining 55 sentences in the GJT targeted the preposition a with ditransitive verbs and psych verbs, thereby functioning as distractors and simultaneously providing more information about participants’ knowledge of the uses of a with other verbs requiring structural and inherent dative case, such as ditransitives and gustar-type psych verbs. However, due to scope limitations, only the results of sentences targeting DOM will be presented here. Participants were instructed to rate each sentence on a scale of 1 (incorrect) to 5 (correct) and to mark 3 (unsure) only when they were unable to make a firm judgment about a given sentence.

| TABLE 1 |
| Sample sentences in the GJTs |
| --- | --- | --- |
| Grammatical | Animate | Mi hermana vio a Carmen ayer. |
| Ungrammatical | Animate | *Mi padre vio mi hermano. |
| Ungrammatical | Inanimate | *Joaquín vio a la última película de Batman. |
| Grammatical | Inanimate | Cecilia vio la exposición de arte contemporáneo. |
6.3 Instructional intervention

The instructional intervention consisted of an explicit grammatical explanation of the *a-personal*, followed by a practice exercise in which immediate, explicit corrective feedback was provided. The intervention contained both positive and negative evidence. Specifically, the grammatical explanation provided learners with positive evidence about *a-personal* in the form of grammatical sentences with animate and inanimate objects in Spanish. In addition, it provided negative evidence, as it alerted learners to the contrast between Spanish, which requires the animacy marker *a*, and English, which does not differentially mark objects on the basis of animacy. Learners were instructed:

From the perspective of an English speaker, the "a" appears to be an “extra” word. From the perspective of a Spanish speaker, the "a" is required, and to not use it is an error. So you could never say “Conozco María” in Spanish.

After reading the grammatical explanation, learners completed a 20-item practice exercise online. Each item consisted of one sentence with a drop-down menu immediately preceding the object, from which the learners chose either *a* or --. Of the 20 items, 10 had animate objects and 10 had inanimate objects. Following each response, participants received immediate, explicit feedback that (a) indicated whether or not their response was correct and (b) provided a metalinguistic explanation, as shown in Figure 1. Participants were allowed to review the explanation and complete the practice task as many times as necessary to achieve 90% accuracy. The participants were all familiar with the presentation of the explanation and practice activities (and with the 90% cutoff score), since this was standard practice for all of the online materials in the course.

FIGURE 1
Examples of explicit feedback provided during instruction

   Correct! You need to put an “a” before Carolina because Carolina is a person (animate).

2. Busco [a] / ∅ el libro de Pablo.
   Sorry! You do not need to put an “a” before el libro de Pablo because book is inanimate. Try again!

6.4 Design

The study followed a classic pre-post-test design. In week one, both native speakers and L2 learners completed a language background questionnaire and GJT pre-test. Then, in week 2, the instructed L2 learners completed the instructional module online, followed immediately by the GJT post-test. The L2 controls took only the GJT post-test in week 2.

7. Results

To answer the research question, mean grammaticality judgment scores from the native speaker baseline group were examined first. Native speakers performed as predicted, accepting grammatical DOM sentences (with the *a-personal*) (4.95, SD=.09) and rejecting ungrammatical ones (without the *a-personal*) (1.1, SD=.35), as shown in Figure 2 below.
Given this pattern of behavior by native speakers, the L2 learners’ GJT data were then examined. On the pre-test, the control group’s mean grammaticality judgment rating was 4.07 (SD=.62) for grammatical sentences and 3.81 (SD=.79) for ungrammatical sentences. The instructed group’s mean grammaticality judgment rating was 3.93 (SD=.56) for grammatical sentences and 3.80 (SD=.72) for ungrammatical sentences. Results of an ANOVA and post-hoc Scheffé test indicated that the native speakers’ ratings differed significantly from those of the L2 learners, both for grammatical, \( F(2,72) = 15.961, p <.0001, \eta^2_p = .316 \), and ungrammatical sentences, \( F(2,72) = 61.046, p <.0001, \eta^2_p = .639 \).

At the time of the post-test, the uninstructed control group’s mean grammaticality judgment rating for grammatical sentences had increased from 4.07 to 4.33 (SD=.53) and for ungrammatical sentences it had fallen from 3.81 to 3.67 (SD=.83). The instructed group’s means changed more dramatically, with the rating for grammatical sentences increasing to 4.42 (SD=.42) and the rating for ungrammatical sentences falling to 2.77 (SD=.74). Repeated-measures ANOVAs with one within-subjects factor (time) and one between-subjects factor (group) were performed on grammatical and ungrammatical sentences. For grammatical sentences, there was a significant effect for time, \( F(1,58) = 79.159, p <.0001, \eta^2_p = .577 \), since there was some maturation for both groups from pre-test to post-test. It also revealed a significant interaction between time and group, \( F(1,58) = 7.838, p = .007, \eta^2_p = .119 \), due to the instructed group’s larger increase from pre-test to post-test compared to the control group. For ungrammatical sentences, there was also a significant effect for time, \( F(1,58) = 328.36, p <.0001, \eta^2_p = .850 \), a significant effect for group, with an advantage for the instructed learners \( F(1,58) = 16.686, p <.0001, \eta^2_p = .223 \), and a significant interaction between time and group, \( F(1,58) = 44.756, p < .0001, \eta^2_p = .436 \). These results indicate that all learners improved in their ability to distinguish grammatical and ungrammatical sentences during the period of the study but that the learners who received instruction on the \( a \)-personal made significantly larger gains in their ability to identify ungrammatical sentences. The mean ratings displayed in Figures 3 and 4 indicate that the instructed learners’ ability to distinguish between grammatical and ungrammatical sentences increased markedly as a result of the instructional intervention, although certainly not to nativelike levels.
Once it was established that instruction had promoted overall gains with regard to the *a-personal*, the effects of instruction on individual sentence types were examined in more detail (Figures 5 and 6).
Since the target of instruction was sentences with animate objects, pre- and post-test grammaticality judgment ratings for those sentences were examined first. On the pre-test, the mean grammaticality judgment rating for animate grammatical sentences (e.g., *Mi hermana vio a Carmen ayer) was 3.79 (SD=.76) for control learners and 3.67 (SD=.63) for instructed learners. At the time of the post-test, the mean for control learners had increased to 4.17 (SD=.72) and the mean for instructed learners was larger, 4.41 (SD=.57). For animate ungrammatical sentences (e.g., *Mi padre vio mi hermano) the pre-test mean was 4.03 (SD=.74) for control learners and 3.18 (SD=.86) for instructed learners. At the time of the post-test, the mean for the control learners had decreased to 3.83 (SD=.82) and the mean for the instructed learners was 2.89 (SD=.89). A repeated-measures ANOVA showed that the instructed group significantly outperformed the control on animate ungrammatical sentences, $F(1,58) = 17.673, p <.0001, \eta^2 = .234$, but not on animate grammatical sentences, $F(1,58) < 1, p = .682$. 

L2 learners’ GJT ratings for Animate DOM sentences

![FIGURE 5](image)

L2 learners’ GJT ratings for Inanimate DOM sentences

![FIGURE 6](image)
Next, pre- and post-test grammaticality judgment ratings for sentences with inanimate objects were examined. On the pre-test, the mean grammaticality judgment rating for inanimate grammatical sentences (e.g., *Cecilia vio la exposición de arte contemporáneo*) was 4.36 (SD=.67) for control learners and 4.20 (SD=.71) for instructed learners. At the time of the post-test, the mean for the control learners had increased to 4.49 (SD=.60) and the mean for instructed learners was 4.43 (SD=.52). No significant difference was found between the control and instructed groups for these sentences, $F(1,58) < 1, p = .479$. For inanimate ungrammatical sentences (e.g., *Joaquín vio a la última película de Batman*), the pre-test mean was 3.60 (SD=1.06) for the control learners and 2.99 (SD=.89) for the instructed learners. At the time of the post-test, the mean for the control learners had fallen to 3.51 (SD=1.09) and the mean for the instructed learners had decreased more drastically, to 2.66 (SD=1.03). This difference between control and instructed groups was significant, $F(1,58) = 7.779, p = .007, \eta^2_p = .118$.

7.1 Summary of Results

Overall, instruction had the desired effect, promoting learners to better distinguish between grammatical and ungrammatical sentences involving the a-personal. Specifically, after instruction learners became more accepting of grammatical sentences and less accepting of ungrammatical ones. The largest effect size was found for animate ungrammatical sentences ($\eta^2_p = .234$), indicating that instruction had the greatest impact on sentences that require Differential Object Marking in Spanish.

To get a more detailed picture of the instructed learners’ response patterns, individual results were then examined. Each individual learner’s pre-test mean was subtracted from his/her post-test mean for each type of sentence, and then learners were counted as having made a positive change (in the expected direction), a negative change (in the unexpected direction), or no change from pre-test to post-test (Table 2). Looking at the data this way, depending on the sentence type, between 53 and 100% of learners made positive changes as a result of the instruction. On grammatical sentences with inanimate objects, however, 53% of learners made no change from pre-test to post-test. Again, this is not surprising, since that is the sentence type learners are most commonly exposed to, and for which they had the most nativelike intuitions. Since they already accepted these grammatical sentences at the time of the pre-test, there was no gain from the instruction. And finally, an examination of learners for whom there was a negative change from pre-test to post-test reveals that 10% of learners overgeneralized the DOM rule, accepting ungrammatical sentences with inanimate objects on the post-test (*Joaquín vio a la última película de Batman*).

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<th>TABLE 2</th>
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<tr>
<td>Positive change</td>
<td>30 (100%)</td>
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<td>No change</td>
<td>0 (0%)</td>
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<tr>
<td>Negative change</td>
<td>0 (0%)</td>
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8. Discussion and conclusion

Overall, the results of this study indicate that L2 learners of Spanish were able to improve in their ability to distinguish between grammatical and ungrammatical sentences involving DOM, after receiving explicit instruction and practice involving explicit feedback. Also, the online instruction in this study was modeled after the types of instructional modules used throughout a hybrid delivery Spanish course that uses CAI modules as a unit of grammar instruction, reserving face-to-face class time for communicative activities. Therefore, the study simultaneously tested the effectiveness of this method of course delivery, finding that overall students made gains with respect to the target structure from interacting with the self-instructional grammar unit. Although this study provides just one measure of learning (GJTs) and tests the efficacy of just one module of instruction, it seems to provide
support for this type of hybrid instruction. Certainly further research in this area, and in the area of computer-assisted language learning (CALL) in general, is warranted to determine precisely which aspects of technology-enhanced instruction are most effective on which grammatical targets.

Despite the effects found for instruction in this study, it is important to note that the instructed L2 learners’ post-test GJT ratings for DOM sentences were still significantly different from those of the native speakers. That is, although the instruction slightly improved learners’ ability to distinguish between grammatical and ungrammatical sentences involving DOM, it did not make them perform like the native speakers. This result should not be unexpected given the short duration of the instructional treatment and the difficulty of the structure for L1 English speakers, evidenced anecdotally by language instructors and in previous SLA research (VanPatten & Cadierno, 1993; Johnston, 1995). In fact, even the overgeneralization of the rule for the 10% of participants who rated sentences such as *Joaquin vio a la última película de Batman as more grammatical after the treatment than before it could be indicative that U-shaped learning is beginning to take place.

The results presented here showed that instruction consisting of explicit rule presentation, positive evidence, and practice with explicit feedback was effective in getting L2 learners to distinguish between grammatical and ungrammatical sentences involving DOM. However, since the participants received instruction that included all of these elements, our data do not allow us to make claims about which particular aspect(s) of the instructional intervention led to the gains. Future research could investigate the relative effects of each aspect, as in Sanz and Morgan-Short (2004).

Also, future studies should examine whether the results found on the immediate post-test are durable, or whether further evidence of U-shaped learning would be found on a delayed post-test. In addition, research should investigate whether the findings for GJTs hold true for oral or written production measures, since it is possible that the instruction in this study was sufficient to affect learners’ sensitivity to grammatical and ungrammatical sentences but not enough to make an impact on their real-time production of sentences requiring DOM.

It is important to clarify that since the L2 learners in this study were not true beginners, some already displayed some sensitivity to DOM on the pretest. However, the magnitude of the effect improved substantially after instruction. Although we were able to show that L2 learners restructure their interlanguages and can overcome the structure imposed by their L1 (Schwartz & Sprouse, 1996), it is obvious that these low-intermediate learners have not yet learned the rules for DOM completely. Therefore, to see whether Full Access is entirely possible in this grammatical domain, in future research we would like to test advanced and near-native L2 learners’ ability to distinguish grammatical and ungrammatical sentences involving DOM. Similar tests with advanced learners would reveal whether the problems attested here with lower-level learners persist and whether instruction would be beneficial for learners at these levels as well. Also, tests with near-native speakers would reveal whether learners’ knowledge of DOM fossilizes.

References


