

# On Binding Asymmetries in Dative Alternation Constructions in L2 Spanish

Silvia Perpiñán and Silvina Montrul  
University of Illinois at Urbana-Champaign

## 1. Introduction

Ditransitive verbs can take a direct object and an indirect object. In English and many other languages, the order of these objects can be altered, giving as a result the Dative Construction on the one hand (*I sent a package to my parents*) and the Double Object Construction, (*I sent my parents a package*, hereafter DOC), on the other. However, not all ditransitive verbs can participate in this alternation. The study of the English dative alternation has been a recurrent topic in the language acquisition literature. This argument-structure alternation is widely recognized as an exemplar of the poverty of stimulus problem: from a limited set of data in the input, the language acquirer must somehow determine which verbs allow the alternating syntactic forms and which ones do not: you can *give money to someone* and *donate money to someone*; you can also *give someone money* but you definitely cannot *\*donate someone money*. Since Spanish, apparently, does not allow DOC (*give someone money*), L2 learners of Spanish whose mother tongue is English have to become aware of this restriction in Spanish, without negative evidence. However, it has been noticed by Demonte (1995) and Cuervo (2001) that Spanish has a DOC, which is not identical, but which shares syntactic and, crucially, *interpretive* restrictions with the English counterpart. Moreover, within the Spanish Dative Construction, the order of the objects can also be inverted without superficial morpho-syntactic differences, (*Pablo mandó una carta a la niña* ‘Pablo sent a letter to the girl’ vs. *Pablo mandó a la niña una carta* ‘Pablo sent to the girl a letter’).

This paper is mainly concerned with these two kinds of alternations in the Spanish Dative Construction, specifically with the acquisition of the relationship between the structure of the Spanish dative alternation and its binding constraints. We ask whether L2 learners of Spanish are aware of the syntactic and semantic constraints on the Spanish dative alternation and we present the results of an experiment.

## 2. Ditransitive constructions in Spanish and in English

English has two different dative constructions depending on the ditransitive verb. Ditransitive or dative verbs are those taking both theme and goal arguments (*to*-datives) or theme and benefactive arguments (*for*-datives). Pinker (1989) and Gropen et al. (1989) have argued that the fact that some ditransitive verbs can have both structures while others can only hold the dative one is due to semantic and morpho-lexical constraints. The semantic constraint is that the goal argument in the DOC must be a possible possessor of the theme argument. The morphological (or lexical) constraint is that only non-Latinate monosyllabic verbs may alternate in both constructions. For this study, only *to*-datives will be considered, as shown in (1) and (2).

*English Dative construction: V DP Theme (DO) PP Goal (IO)*

- (1) a. John gave the money to Mary.  
b. John donated the money to charity.

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\* We would like to thank Karlos Arregi for his comments and help, as well as two anonymous reviewers. All remaining errors are our responsibility.

*English Double Object Construction (DOC): V DP Goal (IO) DP Theme (DO)*

- (2) a. John gave Mary the money.  
 b. \* John donated charity the money.

Like English, Spanish has a Dative Construction but with two different alternations:  $V DP_{Theme (DO)} PP_{Goal (IO)}$ , and  $V PP_{Goal (IO)} DP_{Theme (DO)}$  as shown in (3). On the other hand, Spanish does not have a Double Object Construction of the same structure as English ( $V DP_{Goal (IO)} DP_{Theme (DO)}$ ), i.e., with no preposition introducing the Goal, as shown in (4a).

*Spanish Dative Alternation Construction*

- (3) a. Pablo mandó una carta a la niña / a Barcelona  
 ‘Pablo sent a letter<sub>Acc.</sub> to the girl<sub>Obl</sub> / to Barcelona<sub>Dat</sub>’  
 b. Pablo mandó a la niña una carta.  
 ‘Pablo sent to the girl<sub>Dat</sub> a letter<sub>Acc</sub>’  
 ‘Pablo sent a letter to the girl’

*Spanish Double Object Construction*

- (4) a. \* Pablo mandó la niña una carta.  
 ‘Pablo sent the girl<sub>Dat</sub> a letter<sub>Acc</sub>’  
 b. Pablo le mandó una carta a Andreína / \* a Barcelona  
 ‘Pablo Cl<sub>Dat</sub> sent a letter<sub>Acc</sub> Andreína<sub>Dat</sub> / a Barcelona<sub>Dat</sub>’

As the examples in (3) show, the order of constituents in Spanish can vary, although the preferred or default order is  $V DP_{Theme} PP_{Goal}$ . In other words, sentence (3b) sounds marked as opposed to (3a). This means that (3a) can be used in any context but (3b) is more restricted, favoring a contrasting reading: *Pablo mandó a la niña una carta y a la madre unas flores* ‘Pablo sent to the girl a letter and to the mother some flowers.’ Even though Spanish does not allow a Double Object Construction, several studies have recently proposed that Spanish dative constructions with dative clitic doubling, as in (4b), are equivalent to the Germanic-type Double Object Constructions (DOCs) (cf. Anagnostopoulou 2003, Bleam 1999, 2001, Cuervo 2001, Demonte 1995, Masullo 1992, Uriagereka 1988).<sup>1</sup> Evidence for this proposal comes from the behavior of dative constructions in binding dependencies, to which we turn in the next section.

## 2.1 Binding asymmetries

Traditional accounts of the DOC construction (Demonte 1995, Larson 1988) considered that the DOC in (2) derives from the dative construction in (1), where the theme c-commands the goal. This assumption entails important asymmetries in the structural behavior of the two objects in double object constructions, as Barss and Lasnik (1986) pointed out.

Assuming Condition A and B of Binding Theory, anaphors must be bound in their Government Category, and pronouns must be free. However, as Reinhart (1986) remarked, possessives must be c-commanded by their antecedent when this antecedent is in a Quantifier Phrase. That is because the possessive is interpreted as a variable.

An asymmetry, consequently, arises in Double Objects in which the anaphor is not c-commanded, as shown in (5) and (6).

<sup>1</sup> There are different analyses of the clitic. For instance, Demonte analyzes the clitic as a functional projection, a Dative Clitic Phrase, whereas Cuervo considers it an applicative head. However, due to space limitations, we will not go further in the clitic analysis.

- (5) a. I showed Mary herself.  
b. \* I showed herself Mary.
- (6) a. I gave every worker<sub>i</sub> his<sub>i</sub> paycheck.  
b. \* I gave its<sub>i</sub> owner every paycheck<sub>i</sub>.

But, as Larson (1988) shows, a similar asymmetry also occurs in Dative constructions (V-DP-PP):

- (7) a. I showed Mary to herself  
b. \* I showed herself to Mary.
- (8) a. I gave every check<sub>i</sub> to its<sub>i</sub> owner.  
b. ?? I gave his<sub>i</sub> paycheck to every worker<sub>i</sub>.

According to Demonte (1994) this phenomenon is also observed in Spanish. In Demonte's words and with her own examples shown in (9): "the facts of reflexive anaphora binding show that in sentences similar to (3a) the DO asymmetrically c-commands the IO, given that only the IO can be anaphoric" (1994:113-4).

- (9) a. El tratamiento psicoanalítico reintegró/devolvió a María (DO) a sí misma (IO)  
Psychoanalytic therapy gave back María to her-self  
'Psychoanalysis helped María to become more her own person'  
b. \*El tratamiento psicoanalítico reintegró/ devolvió (a) sí misma (DO) a María (IO).  
'Psychoanalytic therapy gave back herself to María'

A similar direction of c-command shows up in bound pronoun structures. For instance, only in the first of the two following sentences is the distributive coreferential reading obtained (Demonte 1994:114):

- (10) a. La directora entregó cada premio<sub>i</sub> a su<sub>i</sub> ganador.  
'The principal gave each prize to its winner'  
b. \* La directora entregó su<sub>i</sub> premio a cada ganador<sub>i</sub>  
'The principal gave his/her prize to each winner'  
c. ?La directora le entregó su<sub>i</sub> premio a cada ganador<sub>i</sub>  
'The principal Cl<sub>Dat</sub> gave his/her prize to each winner'

Native speaker judgment of sentences like the one in (10c), where the grammaticality improves with clitic doubling, is crucial for the claim that DOC exists in Spanish. Thus, for Spanish Dative constructions, Demonte (1994) proposes a D-structure where the Direct Object is higher than the Indirect Object and the DO asymmetrically c-commands the IO, as in (11).

- (11)
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graph TD
    VP1[VP1] --- DP[DP]
    VP1 --- V_prime[V']
    DP --- Pablo[Pablo]
    V_prime --- V1[V1]
    V_prime --- VP2[VP2]
    V1 --- e[e]
    VP2 --- DP1[DP1]
    VP2 --- V_prime2[V']
    DP1 --- una_carta[una carta]
    V_prime2 --- V[V]
    V_prime2 --- PP[PP]
    V --- mandó[mandó]
    PP --- P[P]
    PP --- DP2[DP2]
    P --- a[a]
    DP2 --- la_niña[la niña]
  
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- a letter  
sent  
to  
the girl

This structure can explain the data in (9) and (10ab) but it would not predict the data in (12), where the IO can bind the pronoun in the DO.

- (12) La directora entregó a cada ganador<sub>i</sub> su<sub>i</sub> premio.  
 ‘The principal gave to each winner his/her prize.’

Demonte (1994) accounts for (12) by proposing IO scrambling. Once the quantified phrase is scrambled out of the VP, it is able to bind the pronoun. However, if we assume that IO scrambling takes place, there cannot be reconstruction of this movement, otherwise (13) would be grammatical, but it is not.

- (13) \*La directora entregó a su<sub>i</sub> ganador cada premio<sub>i</sub>.  
 ‘The principal gave to its winner each prize’

On other more recent approaches (Bruening 2001, Cuervo 2001), the alternates (DOC and Dative construction) are the expression of two configurations that are not derivationally related. In other words, the dative in the DOC (4b) is in a higher position than the accusative, whereas in the Dative Construction (3), the accusative is higher than the dative. Bruening (2001) explains the ungrammaticality of (5b) and (6b) in terms of frozen scope. Before presenting the specific hypotheses for our study, let us first review previous work on the acquisition of the dative alternation.

### 3. Dative alternation in L1 and L2 acquisition

Argument structure alternations represent an interesting poverty of stimulus argument (or learnability problem) in language acquisition (Baker 1979, Pinker 1989). Dative Alternation applies to a particular group of verbs: the verb has to be ditransitive (*give*, *send*); the morphological root cannot be Latinate (*give*, *\*donate*); and one of the arguments has to be a possessor (*send Mary a letter*/*\*send Chicago a letter*). How do language acquirers learn the semantic and morphological restrictions that constrain the alternation without access to negative evidence?

For Mazurkewich and White (1984) verbs which alternate have two sub-categorization frames related by a lexical redundancy rule, i.e., (a): [NP PP], corresponding to a sentence like *Mary gave a present to him* and (b): [NP NP], *Mary gave him a present*. Mazurkewich and White hypothesized that English-speaking children are unaware of the semantic and morphological constraints of the lexical redundancy rule, and as a consequence, children overgeneralize the construction to verbs that disallow it, producing sentences such as *\*Mary donates him a present*. Only through positive evidence do children unlearn these overgeneralizations.

Similar studies were conducted in L2 acquisition. Bley-Vroman and Yoshinaga (1992) investigated the English dative alternation with real and nonce verbs in adult Japanese speakers. The question was whether adult L2 learners whose language does not have a double object construction like English could learn to extract the rules underlying the alternation in English. According to them, the results fully supported the Fundamental Difference Hypothesis (Bley-Vroman 1990), according to which L1 and L2 acquisition are radically different, and UG accessibility is weak and only by means of L1.<sup>2</sup>

Other studies have focused on the issue of transfer in L2 acquisition. White (1991) tested whether learners whose L1 has a dative alternation (English) transfer the alternation to the L2 which does not allow the alternation (French). Results showed that the English-speaking participants (120 children and

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<sup>2</sup> Bley-Vroman and Yoshinaga (1992) were testing two of the features that, according to Pinker (1989), regulate Dative Alternation, i.e., Narrow Range Dative Rules and possession constraint. They concluded that Japanese learners successfully acquired the possession constraint on the double-object dative (because they transfer it from their L1) but these learners failed to acquire the Narrow Range Dative Rules that determine which nonce verbs alternate. According to them, the reason why the learners failed is because this property is language-specific.

27 adults) accepted (illicit) DOC forms in French. Similarly, Inagaki (1997), who tested adult Chinese and Japanese learners of English, found evidence of L1 transfer in Chinese speakers learning the English dative alternation.

More recently, Whong-Barr and Schwartz (2002) have compared the acquisition of English *to*- and *for*-dative alternation by L1 English, L1 Japanese, and L1 Korean children. They chose these three languages because they have different properties: while Japanese disallows all DOC constructions, Korean has the equivalent of *for*-dative verbs but disallows the *to*-dative ones. The results showed that all groups allowed illicit *to*-DOC, evidencing overgeneralization, like in L1 acquisition. Furthermore, the Japanese, but not the Koreans, allowed illicit *for*-DOC, consistent with L1 influence. These results support the Full Transfer/Full Access Hypothesis (FT/FA; Schwartz & Sprouse 1994, 1996), which proposes that the initial state of L2 acquisition is the grammar of the L1 and that the L2 development occurs through Universal Grammar (UG). Whong-Barr and Schwartz's results also confirm Montrul's (1997, 2001) proposal about transfer of derivational morphology in argument structure alternations. Since Korean uses overt morphology for *for*-dative but English does not, Korean speakers are initially conservative at accepting these structures, and do not accept illicit *for*-DOC either.

To summarize, the existing studies on the acquisition of the dative alternation have investigated the acquisition of argument structure and other morpho-syntactic aspects of the alternation. The converging results of all these studies suggest that L2 learners transfer morphological and argument realization properties from their L1. Therefore, the FT/FA Hypothesis seems to be strongly supported.

#### 4. The present study: Research questions and hypotheses

Moving beyond the acquisition of argument structure, our concern in this study is the acquisition of the relationship between the structure of the dative alternation in Spanish and its binding constraints illustrated in section 2. Specifically, our research question is the following: Can the Full Transfer/ Full Access Hypothesis account for the syntactic and interpreting properties of the L2 acquisition of the dative alternation in Spanish by English-speaking learners?

Recall from section 2 that the differences between Spanish and English are that in Spanish, the dative must always be introduced by the preposition *a* 'to', and also, that it has optional doubling of the dative argument with a clitic.<sup>3</sup> On the other hand, both languages have the same structural constraints on reflexive binding, as shown in (7b)–(9b). Furthermore, both languages share the impossibility of binding a possessive with a quantifier if the QP does not c-command the possessive, as seen by (6b) and (10b). So, although Spanish and English are superficially (i.e., morpho-syntactically) different in the dative alternation construction, the two languages are similar in the way reflexives and quantifiers are interpreted. Given these characteristics, our second research question is the following: Can L2 learners overcome the superficial differences between the two languages and realize that they are very similar at another, interpretive, level?

According to the FT/FA Hypothesis (Schwartz & Sprouse 1994, 1996), the entirety of the L1 is the initial state in L2 acquisition. When the L1 can no longer accommodate L2 input, L2 learners resort to UG and restructure their grammars accordingly. However, convergence of the target grammar is possible, but not guaranteed.

In the particular case we are studying here, the predictions are as follows:

(1) Lower proficiency learners will transfer the English DOC into Spanish. They are likely to be inaccurate with the constructions exhibiting morpho-syntactic differences between the two languages, namely, with clitic doubling and missing dative prepositions.

(2) English-speaking learners of Spanish, no matter which level, should interpret the binding asymmetries like native speakers of Spanish, and like in English.

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<sup>3</sup> There is considerable dialectal variation about the optional character of the presence of the dative clitic. It also varies depending on the verb. There are some verbs that require this clitic, especially when the dative is "affected." According to Demonte (1995), some of the verbs that accept optional clitic doubling are *confiar* 'trust,' *dar* 'give,' *devolver* 'return,' *donar* 'donate,' *enseñar* 'teach,' *entregar* 'deliver,' *mostrar* 'show,' *traer* 'bring,' etc.

## 5. Methodology

### 5.1 Participants

Participants were English-speaking learners of Spanish at the low intermediate ( $n = 23$ ) and high intermediate to advanced levels ( $n = 13$ ). Eight Spanish native speakers (6 from Spain and 2 from Latin America) acted as the comparison group. Placement by proficiency level was based on course enrollment in a Spanish program at a large research university in the U.S. and self-reports on length of exposure to Spanish. All learners started learning Spanish after puberty.

### 5.2 Instrument

We designed a sentence interpretation task, partially based on the methodology developed by Dekysdspotter et al. (1997), to elicit L2 learner's knowledge about the suitability of a sentence within a context meaning. In this type of preference judgment task, a short narrative context is provided, followed by two target sentences. Participants need to decide which of the two sentences describe the situation presented in the narrative. A sentence may not be suitable because either it is not grammatically correct, or because it does not fit the meaning of the given context.

We tested 40 story-sentence stimuli manipulating word order as well as the interpretation of bound pronouns and quantifiers. To make sure the L2 learners understood the stories, these were presented in English (as in Dekysdspotter et al. 1997), while the sentences to be judged were presented in Spanish. An example is shown in (13).

(13) Juan received an angry e-mail from María saying that it has been more than a year since he had one of her books. She asked him to return it. Next time he saw her:

- a. Juan devolvió el libro a María.  
'Juan returned the book to María'
- b. Juan devolvió a María el libro.  
'Juan returned to María the book'

*Which one feels right in this context?*

- 1. a      2. b      3. a and b      4. none

There were 6 pairs of structures tested, or experimental conditions, as well as distracters. The first condition tested word order preferences, as exemplified in (13). Here, the informants had to decide if they prefer V+ DP+ PP (theme + goal) order or V+ PP+ DP (goal + theme), or if they accepted both. In this case, the first option is the default one although both sentences are correct. The purpose of this structure was to control for word order preference in ditransitive sentences.

The second condition contrasted two kinds of DOC, as shown in (14):

(14) María, Juan's friend, had a baby. So Juan decided to send flowers to his friend:

- a. Juan le envió flores a su amiga.  
Juan Cl. sent flowers to his friend  
'Juan sent his friend flowers'
- b. \* Juan envió su amiga flores.  
'Juan sent flowers his friend'

Option *a* is the optional doubling of the dative clitic, which for some linguists is Spanish DOC. Option *b* is a literal translation from English DOC, which is ungrammatical because the obligatory preposition that introduces the goal is missing.

The third condition tested interpretation of possessives. In this pair of sentences the theme was a DP introduced by a possessive pronoun coreferring with the person in the goal position, as in (15).

- (15) Several international students had a problem with their visas. Juan, who has some contacts with the Consulate, helped them with the paperwork:
- a. Juan resolvió su<sub>i</sub> problema a los estudiantes<sub>i</sub>.  
'Juan solved their/ his problem to the students'
  - b. Juan resolvió a los estudiantes<sub>i</sub> su<sub>i</sub> problema.  
'Juan solved to the students their/ his problem'

We expected that it would be pragmatically easier to interpret the possessive if the antecedent was already present in the sentence as in (15b) than to have it to appear, as in (15a), regardless of the fact that (15b) would go against Spanish natural word order. Nevertheless, both structures are correct, although option *b* is marked as compared to *a*.

The next two conditions tested binding of quantifiers. In the first one, the quantifier is in the theme and the possessive in the goal phrase, as in (8a). According to Reinhart (1986), the only acceptable sentence is when the quantifier *c*-commands the possessive. Assuming Demonte's (1994, 1995) analysis of Spanish dative constructions, in which the theme always *c*-commands the goal, the possessive can be bound in a sentence such as (16a) but not in (16b) because there is no reconstruction of the IO scrambling:

- (16) Juan is the director of an annual feminism award. The day of the ceremony:
- a. Juan entrega cada premio<sub>i</sub> a su ganadora<sub>i</sub>.  
'Juan delivers each prize to its/his/her winner'
  - b. \*Juan entrega a su<sub>i</sub> ganadora cada premio<sub>i</sub>.  
'Juan delivers to its/his/her winner each prize'

The reverse structure to this one was also examined, in which the quantifier is in the goal and the possessive in the theme, as we saw in (8b):

- (17) In Krannert Theater, seats are not assigned in advance. Once one arrives at the door:
- a. \*El acomodador asigna su asiento a cada espectador.  
'The usher assigns his/her/their seat to each spectator'
  - b. El acomodador asigna a cada espectador su asiento.  
'The usher assigns to each spectator his/her/their seat'

Following Demonte's (1994, 1995) analysis, the word order in *a* is the basic one (theme + goal), but the sentence is ungrammatical because the pronoun cannot be bound by the quantifier. The same judgment would be expected in option *b*, but since IO scrambling has occurred, the sentence is grammatical.

The last condition tested reflexive binding in two sentences. The reflexive was in the IO and the referential DP coreferred to was the DO:<sup>4</sup>

- (18) Juan went to a show where he was hypnotized. When the performance was over, the conductor of the show woke Juan up:
- a. El hipnotizador devolvió a Juan a sí mismo.  
'The hypnotizer brought back Juan to himself'
  - b. \*El hipnotizador devolvió a sí mismo a Juan.  
'The hypnotizer brought back himself to Juan'

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<sup>4</sup> In Spanish, animate DOs require the preposition *a*, as the IOs do, so DO and IO in this case are morphologically identical. We tried to avoid this allomorphy by using animals in the test sentences, in which case the preposition is optional: "Juan mostró el chimpancé; a sí mismo; en el espejo" vs. "\*Juan mostró a sí mismo; el chimpancé; en el espejo", in these sentences, the word order is undoubtedly V+DO+ IO vs. V+ IO+ DO. However, we also referred to humans in the experiment. For those, we are assuming that the order is as in (18), i.e., (18a) is V+DO+IO and (18b) is V+IO+DO. However, Demonte (1994) assumes that both sentences (18) are V+ DO+ IO, which explains for her why (18b) is ungrammatical, i.e., because the reflexive DO cannot be bound by its antecedent.

The distracters were testing subject order with unaccusative verbs (5 scenarios) and adverb placement (5 scenarios).

## 6. Results

All the responses were converted to acceptance percentage scores, and these were submitted to statistical analysis (ANOVA with repeated measures, with sentence pair conditions and group as between and within variables). There was a significant main effect for condition and for group, and interactions. We focus here on the responses of the two sentences in each condition. These were investigated through one way ANOVAs. In what follows, we will discuss the acceptance of each sentence in each condition by proficiency group.

### 6.1 Condition 1: Object position

In this condition, the DO (theme) is a DP and the IO (goal) a PP. The most natural order for ditransitive constructions is (a) *V DO IO* although (b) *V IO OD* is also possible but marked, as is indicated with the circumflex (^). These results appear in Figure 1.

- a. Juan devolvió el libro a María.
- b. ^Juan devolvió a María el libro.

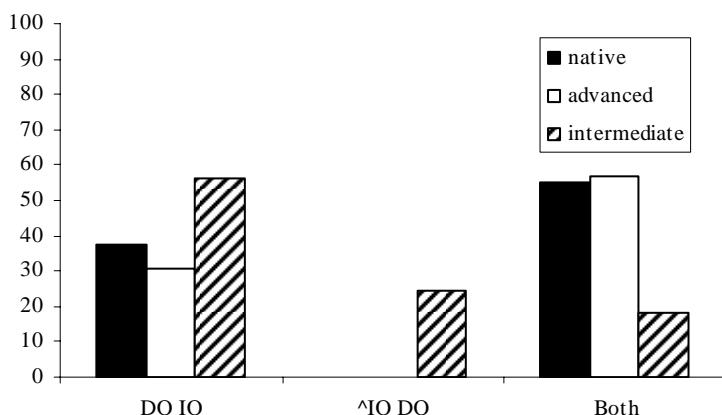


Figure 1: Percentage acceptance of DO IO (NP PP) and IO DO (PP NP) orders

Both orders are grammatical, and this is what natives and advanced speakers mainly chose. Option (b) is marked over (a), so it wouldn't be appropriate to choose it as the preferred sentence. According to the results, the native speakers and the advanced learners accepted DO IO and the two word orders (both) to the same degree, while the low intermediate speakers showed a higher acceptance score of DO IO word order and lower percentage for Both (DO IO:  $F(2,44) = 3.745$ ,  $p < .031$  [native = advanced] # intermediate, Both:  $F(2,44) = 10.707$ ,  $p < .0001$  [native = advanced] # intermediate.)<sup>5</sup> However, the low intermediate speakers differed significantly from the advanced and native speakers in their acceptance of the marked order ^IO DO ( $F(2,44) = 15.728$ ,  $p < .0001$ , [native = advanced] # intermediate.)

<sup>5</sup> We use the symbol “=” to mean not significantly different from each other and the symbol “#” to mean significantly different. Square brackets indicate the groups that patterned together statistically.

## 6.2 Condition 2: Optional doubling clitic construction vs. \*DOC

In this condition, the native speakers and the advanced learners did not differ from each other in their acceptance of CL DO IO sentences, accepting these sentences at about 90% of the time. By contrast, the intermediate speakers accepted this sentence close to chance performance (50%) ( $F(2,44) = 20.223, p < 0.0001$  [native = advanced] # intermediate). As for the ungrammatical responses \*IO DO and \*Both, the intermediate learners are more accepting than the advanced learners and the native speakers (\*IO DO:  $F(2,44) = 8.848, p < 0.001$  [native = advanced] # intermediate, \*Both:  $F(2,44) = 5.402, p < 0.008$  [native = advanced] # intermediate). These patterns of response suggest that the intermediate learners are transferring morpho-syntactic properties of their L1 (namely, omitting the dative preposition as in English DOCs).

- a. Juan le envió flores a su amiga.  
b. \*Juan envió su amiga flores.

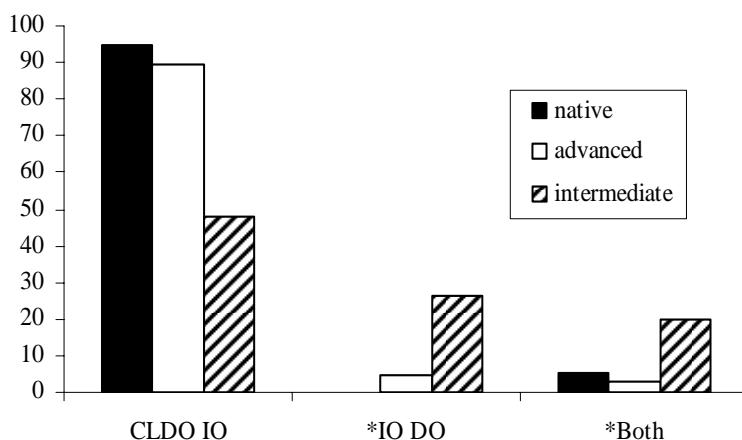


Figure 2: Percentage acceptance of CL DO IO (Clitic NP PP) and DOC (\*IO DO)

## 6.3 Condition 3: Possessive object position

This condition tested whether word order, i.e., immediate preference, makes a difference in the interpretation of coindexation. One of the sentences in the pair has a possessive in the DO, which corefers with the IO, and this coreference was made clear in the context given. Taking into account that the possessive “su” in Spanish is invariable for the gender and number of the possessor and can be translated into the English forms *his*, *her*, *its*, and *their*, we reasoned that having the antecedent right before the pronoun, as in *b*, would facilitate the interpretation. These results appear in Figure 3.

- a. ^Juan resolvió su<sub>i</sub> problema a los estudiantes<sub>i</sub>.  
b. Juan resolvió a los estudiantes<sub>i</sub> su<sub>i</sub> problema.

Once again, the native and advanced groups behaved as expected, but low intermediate speakers preferred the marked option over the others (^Poss DO IO:  $F(2,44) = 12.064, p < .0001$  [native = advanced] # intermediate; IO Poss DO:  $F(2,44) = 3.639, p < .034$  [native = advanced] # intermediate; Both:  $F(2,44) = .140, p < .870$ , ns). Possibly, these learners were choosing natural word order as in Figure 1 and they were not paying attention to pragmatic interpretation.

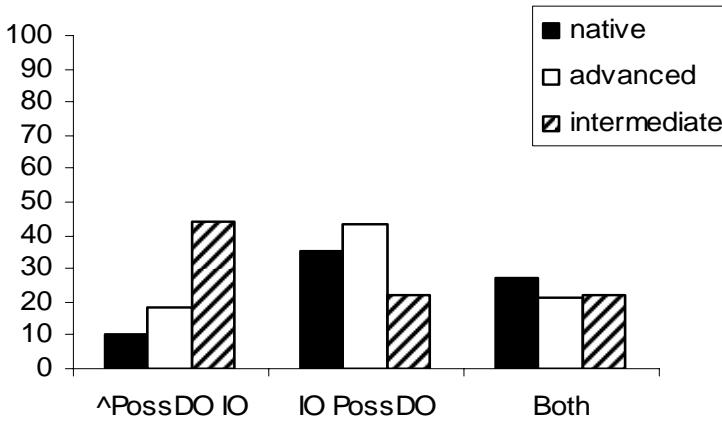


Figure 3: Percentage acceptance of sentences with possessives in the DO or the IO

6.4 Condition 4: Quantifier binding I

As already explained, possessives must be c-commanded by their antecedent, if this is in a QP, in order to be fully interpreted. Figure 4 shows that while all the groups accepted QDO Poss IO to the same degree (sentence *a*) ( $F(2,44) = .830, p < .443, ns$ ), the results of the native speakers and the advance learners with sentence *b* show that it is almost impossible to bind the possessive if it has been scrambled out of the VP because there is no reconstruction ( $*Poss IO QDO: F(2,44) = 4.338, p < .019$  [native = advanced] # intermediate). This result is consistent with Demonte’s (1994) proposal. However, as the figure shows, low intermediate learners preferred this sentence 25% of the time.

- a. Juan entrega cada premio<sub>i</sub> a su<sub>i</sub> ganadora.
- b. \*Juan entrega a su<sub>i</sub> ganadora cada premio<sub>i</sub>.

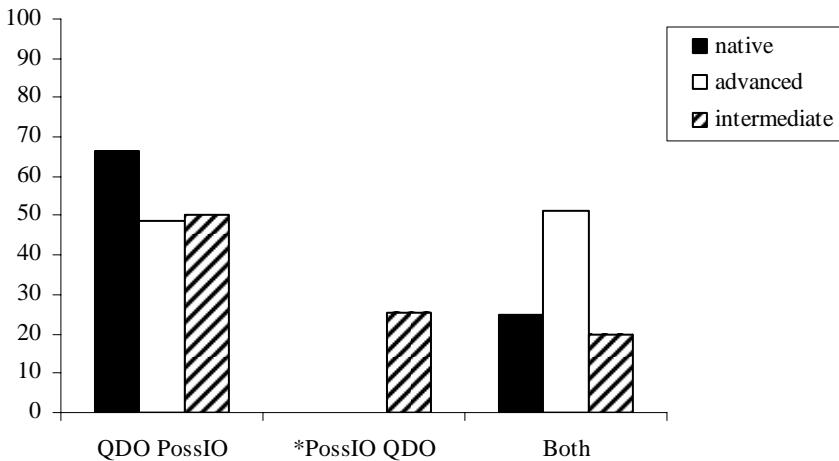


Figure 4: Percentage acceptance of QDO Poss IO or Poss IO QDO

6.5 Condition 5: Quantifier binding II

Assuming Demonte’s (1994) analysis of Dative Alternation construction, in which the DO is in a higher position than the IO, sentence *a* in Figure 5 is ungrammatical, because the possessive is not c-commanded by its quantified antecedent. Nonetheless, sentence *b* is grammatical because the scrambling allows the quantifier to bind the pronoun.

Unlike Demonte’s (1994) predictions, the native speakers accepted both sentences as grammatical, although there is a slight higher preference for the IO in first position (QIO Poss DO:  $F(2,44) =$

15.728,  $p < .0001$  [native = advanced] # intermediate; Both:  $F(2,44) = 2.444$ ,  $p < .099$ , ns). However, low intermediate learners mostly prefer the structure in which the DO precedes the quantified IO (\*Poss DO QIO:  $F(2,44) = 13.664$ ,  $p < .0001$  [native = advanced] # intermediate), as they answered in condition 3 (Figure 3).

- a. \*El acomodador asigna su<sub>i</sub> asiento a cada espectador<sub>i</sub>.  
 b. El acomodador asigna a cada espectador<sub>i</sub> su<sub>i</sub> asiento.

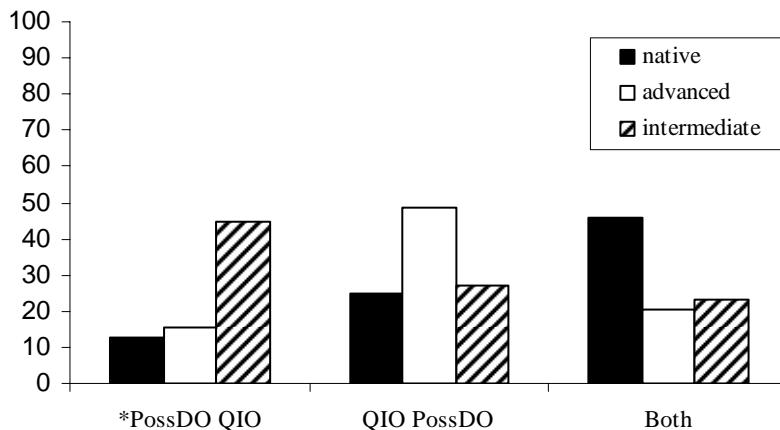


Figure 5: Percentage acceptance of PossDO QIO or QIO Poss DO

### 6.6 Condition 6: Anaphor binding

According to condition A of Binding Theory, an anaphor must be bound by its antecedent. In this pair of sentences, option *b* is ungrammatical because the reflexive cannot be bound by the accusative. The same phenomenon is attested in English, example (7), repeated here as (19):

- (19) a. I showed Mary<sub>i</sub> to herself<sub>i</sub>.  
 b. \*I showed herself<sub>i</sub> to Mary<sub>i</sub>.

The results of this condition, illustrated in Figure 6, show that some of the native speakers accepted these ungrammatical sentences. However, the intermediate learners were more accepting of these sentences than the other groups, even when these sentences are also ungrammatical in their L1. (DO IOReflex:  $F(2,44) = 1.487$ ,  $p < .237$ , ns; \*ReflexIO DO:  $F(2,44) = 6.891$ ,  $p < .002$  [native = advanced] # intermediate; Both:  $F(2,44) = 1.651$ ,  $p < .203$ , ns).

- a. El hipnotizador devolvió a Juan<sub>i</sub> a sí mismo<sub>i</sub>.  
 b. \*El hipnotizador devolvió a sí mismo<sub>i</sub> a Juan<sub>i</sub>.

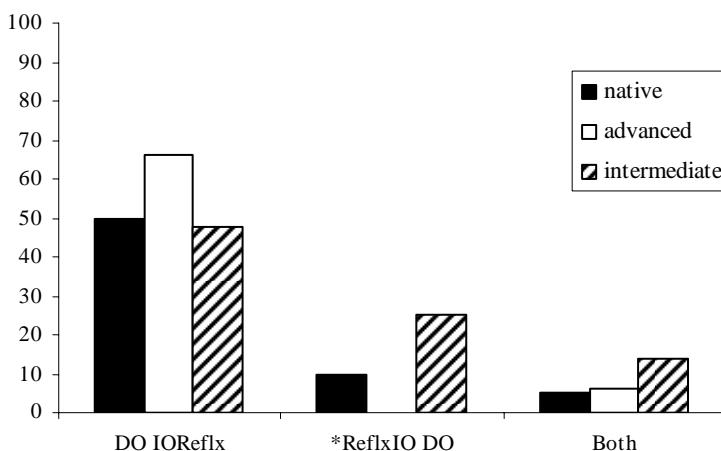


Figure 6: Percentage acceptance of bounded (DO IOReflex) vs. unbounded Reflexive (ReflexIO DO)

## 7. Discussion and conclusion

The aim of this study was to investigate the role of the native language in the acquisition of binding asymmetries in Spanish dative constructions. We tested six conditions, where word order and binding asymmetries were manipulated. Overall, results indicate no significant differences between native speakers and advanced speakers. Nonetheless, native and advanced speakers were significantly different from the low intermediate speakers in the six conditions tested.

Therefore, our first hypothesis is confirmed by our results: Low intermediate learners transfer their L1 at the morpho-syntactic level. These learners accepted ungrammatical constructions (with a missing dative preposition) resembling the English DOC.

The second hypothesis was confirmed with the advanced learners, but not with the intermediate learners. Even though the intermediate learners accepted DOC constructions in Spanish, they did not transfer their L1 interpretations of binding asymmetries, as seen in Figures 1, 4, 5 and 6.

So, it may be possible that certain aspects of interpretation are not accessible at early stages of learning. In L2 acquisition, initially, interpretations may be dissociated from morpho-syntactic knowledge. Since binding interpretations fall within the realm of the syntax-pragmatics interface, just like children acquiring their L1 (Avrutin 1999), L2 learners also have difficulty with the pragmatic component that interfaces with syntax.

Indeed, a couple of recent studies have shown that morphosyntactic knowledge and pragmatic knowledge can be dissociated in early interlanguage grammars. For example Montrul and Rodríguez Louro (In press) showed that while intermediate learners who were still in the process of resetting the morpho-syntactic aspects of the Null Subject Parameter were also very inaccurate with the discourse-pragmatic distribution of null/overt subjects, while advanced learners were accurate with the morpho-syntax and the pragmatic properties of the parameter. Similarly, Slabakova and Montrul (In press) found that advanced learners of Spanish were sensitive to grammatical and pragmatic conditions on aspectual shifts, while the intermediate learners were inaccurate with both.

Coming back to our study, what we propose is that structural binding constraints arise later in development, once other structural (in this case, morpho-syntactic) components are in place. Hence, the Full Transfer/Full Access Hypothesis does not fully account for this partial transfer at low intermediate levels, but it does at the advanced level. As in Montrul (2000, 2001), transfer seems to be modular and selective: L1 may not affect all linguistic domains across the board at a given stage of development. This is because linguistic domains can be differentially affected in acquisition, as they are in fossilization (Lardiere 1998) and L1 attrition (Sorace 2000).

In addition to the implications for theories of language acquisition and representation, our results contribute to linguistic theory and Spanish syntax as well. If we consider the results of the native speakers, the results show that Demonte's (1994, 1995) proposal is not entirely accurate. Many of our native speakers did not answer according to the judgments Demonte proposed (cf. Figure 5). Since native speakers can bind a possessive in the DO position by a quantifier in the IO position, (cf. *El acomodador asigna su asiento a cada espectador*;) what we conclude from this is that the structure of the sentence might be different: that is, the DO is somehow c-commanded by the IO. To explain these data we can extend De Pedro's (2004) analysis of Dative Doubling constructions to Dative Alternation constructions, according to which the basic word order is dative-accusative. The unmarked accusative-dative order is obtained by movement of the accusative over the dative, a movement that she calls *accusative scrambling*. If this is the case, the DO is c-commanded in (17a) before the movement takes place. As De Pedro proposes and our data corroborate, *accusative scrambling* is an A-movement with optional reconstruction. As we see in Figure 5, since the binding configuration in (17a) remains after the movement, we have to assume that there has been reconstruction in this case. In (16a) and (18a), however, the binding of the pronoun is possible after the movement takes place, so there is no reconstruction here. This theory also correctly predicts the judgments in (16b), (17b) and (18b). On the one hand, (16b) and (18b) are ungrammatical, as Figures 4 and 6 showed. This is because the pronoun is in the dative, so in a higher position than the accusative (no movement has taken place): there is no possible c-commanding. On the other hand, (17b) is correct because the quantifier is already in its base word order in a higher position than the pronoun.

In conclusion, our study contributes to an understanding of the L2 acquisition of syntax-discourse interface and to the structure of dative constructions in Spanish native grammars.

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