

## *Exploring the acquisition of differential object marking (DOM) in Spanish as a second language*

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### 1. Introduction

The aim of this chapter is to explore the acquisition of differential object marking (DOM) in Spanish L2 and thus probe the higher level boundaries of the PT framework. In coining the term DOM, Bossong (1983-84, 1991) presented cross-linguistic data on more than 300 languages presenting this grammatical characteristic, whereby direct objects (OBJs) of transitive Vs either remain unmarked or are overtly marked by case or agreement on the basis of some semantic or pragmatic feature. This marking has since attracted considerable attention in linguistic theory (e.g., Aissen 2003; Dalrymple & Nikolaeva 2011; Leonetti 2004; Torrego 1998, 1999, among many others). Unlike the many purely structural approaches, Dalrymple & Nikolaeva's (2011: 1-2) point out that DOM, in the many languages where it manifests itself, "encompasses syntactic, semantic and informational-structural differences between marked and unmarked objects". So they propose that marked OBJs are associated, synchronically or historically, with the information-structure role of *topic*. Where the connection between marked OBJs and topicality has been lost through grammaticalisation, marked OBJs become associated with *semantic features* typical of topics, such as animacy, definiteness and specificity (Dalrymple & Nikolaeva 2011:1-2). Spanish is one of the languages exhibiting DOM, whereby some OBJs are marked with the preposition *a*, also known as marked accusative (Torrego 1998), prepositional accusative, personal *a*, or accusative *a* (Montrul & Bowles 2008; Tippets 2011).

Given our interest in acquisition, we note that Spanish DOM is highlighted in the literature as difficult to acquire, not only for English L1 learners of Spanish L2 (Bowles & Montrul 2009; Guijarro-Fuentes 2011, 2012; VanPatten & Cadierno 1993), but also, perhaps more surprisingly, for early bilingual 'heritage' speakers of Spanish in the USA (Montrul 2008; Montrul & Bowles 2009; Montrul & Sanchez-Walker 2013; Silva-Corvalan 1994). For L2 Spanish, Farley & McCollam

(2004) confirm this difficulty for *a*-marked OBJs. Their findings however show no support for the PT-based schedule they derive from Johnston (1995) and Pienemann (1998), who place *a*-marked OBJs well before subjunctives, which are at the top stage in PT. To our mind this is not surprising because the earlier version of PT locates structures on a single developmental axis, whether they are obligatory or optional, whether declaratives, negatives, interrogatives, or other pragmatically motivated constructions. Thus earlier PT is not equipped to deal with optional and interface phenomena, including Spanish DOM. On the other hand, the current proposal for PT by Bettoni & Di Biase in chapter 1 of this volume offers principled explanations and more attuned predictions in the area of syntax-semantic and syntax-discourse interfaces.

This chapter then sallies into an exploration of the rather controversial area of case marking, itself a relatively new area in PT, but limited to DOM. More specifically it will attempt to show that the current version of PT is better suited to account for the difficulties in learning differential case-marking, which we see as a structure located at the interface of syntax-semantics and syntax-discourse. Similar observations about the difficulties advanced adult L2 learners face when acquiring the interface of syntax with other cognitive domains led Sorace & Filiaci (2006) to propose the Interface Hypothesis, attributing the difficulty, possibly, to computational limitations in integrating multiple sources of information. These difficulties have been variously interpreted also in terms of 'incomplete acquisition' (e.g., Montrul 2008), from lack of access or partial access to universal grammar, or some kind of 'representational deficit' (Clahsen & Felser 2006), and in terms of the Feature (In)accessibility Hypothesis (Gujarro-Fuentes 2011, 2012).

We interpret these difficulties in processing terms, in the sense that the computational complexity created by the requirement to integrate discourse information with syntactic information makes processing in real time harder for the learner (Hopp 2007), as opposed to the native speaker, who has already automatized the necessary underlying processes. It is also plausible, as Wilson (2009) claims, that the additional computational complexity created by the attempt to integrate different layers of information challenges the ability of the learner to allocate cognitive resources appropriately. For example, competing constraints from the L1 may interfere on how to interpret the semantic or discourse requirements. Indeed both resource limitation and resource allocation may contribute simultaneously to the learner's difficulties. We will not delve any deeper into our processing option versus representational deficits as an explanation of the learners' difficulty with interface structures. We will instead suggest to place Spanish DOM, a structure sitting at the interface between syntax and semantics/discourse, within a current PT-based schedule for L2 Spanish, and propose some initial empirical tests for our position. In the remainder of this chapter we will first offer a quick sketch of Spanish and

the intriguing nature of its DOM, followed by a brief review of the acquisitional literature (§ 2). Next, we will present our developmental schedules for L2 Spanish over which DOM is distributed (§ 3), and empirically test them in a small-scale cross-sectional study of oral production of six Austrian students of Spanish as a foreign language (§ 4).

## 2. Spanish and its Differential Object Marking

According to Tippets (2011: 107), Spanish uses the preposition *a* to mark “human accusative (direct) objects. This transparent example of DOM relates to the animacy status of the accusative object”. The facts of Spanish, however, also support the proposition that neither all animate OBJs are *a*-marked nor that all inanimate OBJs are not *a*-marked. But before we zoom into this intriguing grammatical area let us zoom out to a brief overview of the language.

A pluricentric language, Spanish is by far the most widely spoken of the Romance languages, and the national language of 18 countries as well as Spain, with large Spanish-speaking minorities in the USA, and significant minorities in a number of other countries in the world (cf. Green 2011 for an accessible overview of this language). Spanish is also, naturally, subject to regional and sociolinguistic variation. It shares many characteristics with other Romance languages (cf. Italian, ch. 3, this volume) including nonconfigurationality, null SUBJ phenomena, a rich agreement morphology and pronominal clitics. Following Green’s (2011) description and modelling on his examples, Spanish word order is not fixed by grammatical requirements at a particular point in the sentence, which differentiates it from French and even more from the Germanic languages. But it has strong constraints *within* the main syntactic constituents, and its theoretical word order freedom is subject to pragmatic conventions: themes precede rhemes and new information is placed towards the end of the utterance.

In canonical word order, OBJs and complements follow V, as in (1a-b). Given the tendency for SUBJ and TOP to coincide in spoken language, the SVO order in (1a) is very frequent, whereas SOV in (1b) is register-dependent (e.g., in poetry for rhyming reasons); VOS in (1c) would sound very odd, and VSO (1d), although common in more formal registers, would signal contradiction or contrast in everyday language (‘it was Juana, not Carmen, who painted a car’).

- (1) a. Juana            pintó            un coche  
       Juana-SUBJ    painted-3.SG    a car-OBJ
- b. Juana            un coche        pintó  
       Juana-SUBJ    a car-OBJ      painted-3.SG

c. pintó            un coche        Juana  
 painted-3.SG a car-OBJ        Juana-SUBJ

d. pintó            Juana            un coche  
 painted-3.SG Juana-SUBJ a car-OBJ

Similarly to Italian (cf. § 3.1, ch. 3), OBJ (when definite NP or proper N) can be topicalised by placing it at the beginning of the sentence, as in (2a), with an intonation break after TOP and an ACC clitic obligatorily marked on V.<sup>1</sup> As Green (2011) notes, the result of this ‘clitic copying’ is no longer a simple sentence but a complete and perfectly grammatical structure in its own right. In other words, an XP (*los coches/the cars*) is added to a complete S, which here comprises a transitive V with its OBJ clitic marker coreferential with the external XP, followed by SUBJ. Another important point is that, when OBJ is topicalised, SUBJ is postverbal as in (2a), assuming a secondary<sup>2</sup> TOP role. In any case the sentence is complete even when the overt TOP is dropped (2b) because the obligatory OBJ is supplied by the clitic (*los*) displaying anaphoric agreement with TOP.

- (2) a. los coches,        los                            pintó            Juana  
       the cars-PL.MASC they-ACC.PL.MASC painted-3.SG Joan
- b. los                            pintó            Juana  
       they-ACC.PL.MASC painted-3.SG Joan

SUBJ is obligatorily postverbal also in presentationals (3a) and in content questions (3b). However, again following Green (2011), interrogatives should not be assumed to entail SV inversion because postverbal SUBJ frequently occurs in statements,<sup>3</sup> and polar questions may show VS or SV order and rely on intonation to differentiate from statements.

- (3) a. hay            muchos            puentes            en Sydney  
       there are many-PL.MASC bridges-PL.MASC in Sydney

1 Like Italian, Spanish is a head-marking language, which therefore can mark OBJ morphologically on V (i.e., the head).

2 As Dalrymple & Nikolaeva (2011: 53–4) remind us, “(t)he topic role is not necessarily unique”. Along with other scholars (e.g., Givón 1983; Lambrecht 1994; Polinsky 1995), they distinguish at least primary topic and secondary topic.

3 A class of unaccusatives Vs with SUBJ=FOC normally exhibit a VS order, similarly to Italian (cf. § 3.2, ch. 1, this book): in the sentence *llegó el jefe* (‘arrived the boss’), postverbal SUBJ is the unmarked position.

- b. qué            pintó            Juana ?  
       what        painted-3.SG    Joan ?

As for morphology, Spanish explicitly and consistently marks number and gender on all modifiers within NP, as well as number and person, and occasionally also gender, between SUBJ and V, as (4a) shows. This provides optimal grounds for testing classic PT. Interestingly for our concern in this chapter, Spanish – unlike Italian (cf. § 2.1, ch. 3, this volume) – has no anaphoric agreement between lexical V and OBJ, not even in constructions topicalising OBJ, as is confirmed by the grammaticality of (4b), where *comido* (eaten) does not carry the plural and feminine features of *las manzanas* (the apples).

- (4) a. las manzanas    están    maduras  
       the apples-PL.FEM are 3.PL    ripe-PL.FEM
- b. las manzanas    las                    han comido    los monos  
       the apples-PL.FEM they-ACC.PL.FEM have eaten    the monkeys-PL.MASC  
       [the apples have been eaten by the monkeys]

Possible ambiguities in distinguishing between SUBJ and OBJ are resolved by syntactic differences in two important ways, both connected to specificity (Green 2011). The first syntactic difference is that the Spanish SUBJ NP – whether definite, indefinite or generic – requires a determiner, whereas the OBJ does not. This is shown by the grammaticality of (5a), where the SUBJ *el hombre* ('the man') appears with the determiner, and the OBJ *manzanas* ('apples') without it. The OBJ without the article (*manzanas*, 'apples') responds to the question 'what did the men buy?', and is hence a characteristic nonTOP, focused OBJ. On the other hand, (5b) responds to the question 'what happened?'. Hence the OBJ *las manzanas* ('the apples') is again a nonTOP, but neither is it FOC because, as 'event reporting' (Lambrecht 1994), the whole sentence is in focus (new information). With regard to SUBJ, (5c) is ungrammatical because the SUBJ *hombres* ('men') is without a determiner, even though it is generic.

- (5) a. el hombre    compró    manzanas  
       the man    bought-3.SG    apples
- b. el hombre    compró    las manzanas  
       the man    bought-3.SG    the apples
- c. \*hombres    compraron    manzanas  
       men        bought-3.PL    apples

The second syntactic difference distinguishing SUBJ and OBJ is at the core of our concern in this chapter. We illustrate it in (6a-c), where OBJ has an inanimate referent, in contrast to (7a-c), where the *a*-marking is traditionally attributed to semantically human/animate OBJs. Inanimate OBJs such as *coche* ('car') in (6b), on the other hand, would be ungrammatical with such mark. The completeness and coherence of (6c) is provided by the ACC clitic *lo* ('it') ensuring that the transitive V *pintó* ('painted') does have an agreeing OBJ anaphora.

- (6) a. Juana pintó un coche  
       [Joan painted a car]
- b. \*Juana pintó **a** un coche  
       [Joan painted (*a*) a car]
- c. Juana lo pintó  
       Juana it-ACC.SG.MASC painted  
       [Joan painted it]

On the other hand, the human (and specific) OBJ *a su hermano* ('her brother') is correctly marked, differently from the inanimate OBJ which requires no *a* mark.<sup>4</sup> In any case, it is possible to confirm that *un coche* ('a car') in (6a) and *a su hermano* ('her brother') in (7a) are both OBJ because both their equivalent sentences without the overt OBJ in (6c) and (7c) use the same ACC clitic *lo* ('it'/'him').

- (7) a. Juana pintó **a** su hermano  
       [Juana painted (*a*) her brother]
- b. \*Juana pintó su hermano  
       [Joan painted her borteher]
- c. Juana lo pintó  
       Juana he-ACC.SG.MASC painted  
       [Juana painted him]

However, comparing the sentences in (7) with that in (8) we find the same *a* mark for OBL<sub>DAT</sub>.

<sup>4</sup> Inanimate OBJs may be marked with *a* when the speaker wishes to give them a human character, as in *era como si abrazase a un árbol o a una roca* ['it was like embracing 'a' a tree or 'a' a rock'] (Real Academia Española 2010: 659).

- (8) Juana le dió el sombrero a Pancho  
 Juana he-DAT.MASC.SG gave the hat to Pancho  
 [Juana gave the hat to Pancho]

Now, according to Green (2011: 213) “since *a* is also the preposition used to introduce datives there is no overt difference between the majority of direct and indirect objects.<sup>5</sup> Whether the categories have genuinely fused or are merely obscured by surface syncretism is hard to say.” Green then goes on to point out that, whereas most of Latin American varieties maintain separate third person pronominal ACC and DAT clitics, much of Spain has lost this distinction. This last point finds some confirmation in Hualde, Olarrea & Escobar (2001: 342-360), who describe a range of variations in the use of ACC and DAT clitics in their overview of bilingual and contact situations involving Spanish in Latin America, as well as Central America and the USA.

To make DOM more of a puzzle, as we have already mentioned, animate OBJs are not always *a*-marked, as (7) above may imply. The OBJ there is specific enough (*Juana's brother*), but animate OBJs need not be marked if they are not specific, as (9a) shows in contrast with (9b), where the speaker has in mind specifically a lawyer or a particular kind of lawyer, even if not explicitly declared. In (9c) however we find evidence against the necessity of an animate OBJ having to be specific to be *a*-marked, as one could hardly say that the lawyer referred to is specific.

- (9) a. necesito un abogado  
 [I need a lawyer] (*any, not specific, not a-marked*)
- b. necesito a un abogado  
 [I need PREP a lawyer] (*specifically a lawyer, not a doctor, a-marked*)
- c. no necesito a ningún abogado  
 [I don't need PREP any lawyer] (*animate, not specific, a-marked*)

Thus, neither animacy nor specificity turn out to be a failproof guide to *a*-marking of OBJ. What may then be the function of the *a*-marker in (9b-c)? It would seem that this set of contrastive examples actually supports Dalrymple & Nikolaeva's proposal that it should be treated as a marker of topicality.

Another somewhat related motivation for *a*-marking is what Tippets (2011) calls ‘relative animacy’ of SUBJ and OBJ as in (10a), where the *a*-marked OBJ *todos*

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5 In the LFG framework used in this book, direct (ACC) and indirect (DAT) objects are OBJ and OBLDAT respectively.

(*everybody*) is higher in the animacy scale (human) than the SUBJ *la lluvia* (inanimate) and is made prominent by means of the prepositional marker. This could be covered under the ‘animacy’ feature of OBJ, disregarding the ‘inanimacy’ of the SUBJ. However, [-animate] OBJs may also be *a*-marked, as in (10b), where both SUBJ and OBJ are neither ‘personal’ nor animate, and neither could be said to be specific (cf. also the anthropomorphizing example in note 4).

- (10) a. *la lluvia mojó a todos*  
 [the rain drenched PREP everybody]
- b. *la noche sigue al día*  
 [the night follows PREP the day] (*al* = preposition *a* + article *el*)
- c. *quiero un perrito*  
 [I want a puppy dog]
- d. *quiero a un perrito*  
 [I love PREP a puppy dog]

This is an interesting cue to some of the language-internal reasons why *a*-marking may be used: given its flexibility, Spanish word order may be an insufficient cue to subjecthood, or objecthood, so morphological highlighting (or prominence) comes to the rescue and disambiguates for the listener which of the two participants is *not* the SUBJ – recall that SUBJ is an obligatory argument, unrestricted, and never prepositionally marked. Again, we have a case where topicality seems the neater functional explanation for *a*-marking of OBJ.

Finally, for our brief survey of *a*-marking, the lexical meaning of the V itself may also guide the choice of DOM in subtle ways, as shown in (10c-d), where the intended meaning of *quiero* (‘I want’ vs ‘I love’) guides the choice.

In sum, Spanish DOM is neither as straightforward nor as uniform as the learner or the analyst might wish. Nevertheless, the intersection of semantic (animacy) and discourse-related factors (specificity, SUBJ-OBJ relationship, secondary prominence) seem to lend support to Dalrymple & Nikolaeva’s (2011) claim that marked OBJs are associated with the information structure role of topic.

Given such complexities it is interesting to look into what the actual DOM behaviour of native speakers might be and how children learn it. Fortunately, following Laca’s (2006) lead and other researchers’ attempts to characterise factors that are relevant to Spanish DOM beyond anecdotal and constructed examples, Tippets (2011) conducted a quantitative investigation of spoken corpora from three different major Spanish-speaking metropolitan areas: Buenos Aires, Mexico City and Madrid. He includes in his analysis only Vs that display nonuniform marking of



OBJ, and quantifies them over four basic factors: (i) animacy of OBJ, whether animate or inanimate; (ii) specificity of OBJ, whether specific or nonspecific; (iii) form of OBJ, whether a proper N or a lexical N; and (iv) relative animacy, that is, the degree of animacy of OBJ relative to SUBJ – the latter being a discourse related ‘global’ factor, compatible with Darlymple & Nicolaeva’s (2011) relating DOM to secondary topics (cf. also Leonetti 2004). Tippets (2011) found a large measure of agreement on animacy<sup>6</sup> as the primary factor favouring DOM across all three cities. He also found, significantly, that relative animacy is a stronger factor in Buenos Aires and Madrid than ‘local’ (i.e., lexical) animacy. In Tippets’ own words, relative animacy

compares the animacy status of the subject and the animacy status of the DO using the animacy scale *human* > *animate* > *inanimate* (see Comrie 1979; Næss 2007). For example: *El partido reúne a los amigos*. In this case the DO, *amigos* (human), is higher than the S, *el partido* (inanimate), and is coded as *a* as such.” (Tippets 2011: 109)

Furthermore this discourse-based factor, that is, relative animacy, ranks first in both Buenos Aires and Madrid, and second in Mexico City. Animacy of OBJ, on the other hand, ranks first in Mexico City and second in the other two cities. Another significant surprise in this survey is the absence of specificity of OBJ as a factor in the Madrid corpus. Finally, marked OBJs are between 33% and 39% of all OBJs across corpora (bearing in mind that Tippets 2011 considers only Vs that do present *a*-marking across corpora). Interestingly, between a minimum of 17% and a maximum of 28% of animate OBJs are not *a*-marked across dialects. Thus Tippets recognises the prescribed use (animate OBJs should be marked and inanimates should not), but he also laments that such prescription often fails to reflect actual usage, and summarises the situation as follows:

It is not unusual to find human accusatives unmarked as well non-human accusatives marked irrespective of animacy in spoken and written Spanish. Additional “exceptional marking” may occur as a result of ambiguities that arise from the relative flexibility of subject and object position and verbs with the *personal a* also serves a disambiguating function (2011:107).

Thus, Tippets’ survey confirms, on the one hand, the strong presence of DOM in Spanish, but also its variation in usage across Spanish-speaking countries, with statistically significant differences between the three ‘dialects’ (Tippets’ term) considered, as well as a clear connection with discourse.

<sup>6</sup> Inanimate OBJ, albeit infrequently, is confirmed to be *a*-marked between 5% and 8% in the three corpora.

It is not surprising, then, that the conditions under which OBJ must be marked, must not be marked, or is optionally marked, have been vigorously discussed by many scholars, constituting arguably one of the most debated topics in Spanish grammar over the last 200 years, as noted by Rodríguez-Mondoñedo (2008). Recent work (e.g., Torrego 1998) attempts to tackle this issue by identifying a number of conditions that influence DOM in Spanish, such as animacy, specificity, agentivity and the semantics of the predicate, that is, the type of V involved. Each of these conditions, if valid in many or most uses of DOM, does not appear to exhaust the full range of uses (cf. Rodríguez-Mondoñedo 2008). On the other hand, Tippets' work clearly points towards an account that may not be exhaustively satisfactory by appealing simply to a number of structural conditions, however refined, without bringing to bear regional variation and discourse conditions.

We will shy away from reviewing further the huge literature on Spanish DOM here, and note, much more modestly, that its reliance on a particular lexical feature such as animacy, coupled with its relative indeterminacy – Aissen (2003) would say 'fuzziness' – and its relation to topichood, makes Spanish DOM quite complex to learn in spite of its deceptively simple morphological form. Taken together, these factors place DOM high in the Spanish acquisitional schedule because it presupposes, minimally, that functional assignment is in place. In fact, the learner must be able to distinguish not only between SUBJ and OBJ, but also between different types of OBJ (animate vs inanimate), their specificity, and ultimately their discourse status as a possible secondary topic, which we mark here as TOP<sub>2</sub>. Furthermore, learners will need to disentangle *a*-marked ACC from the equally *a*-marked DAT (OBL<sub>DAT</sub> is also typically human) in order to use the appropriate clitic anaphora – a moving target itself, at least in Spain, as Green (2011) points out.

Now let us consider briefly the acquisition of DOM by various types of learners: L1, L2 and Heritage Language speakers (HS). Rodríguez-Mondoñedo (2008) notes that, in spite of the vigorous debates on Spanish DOM, not much is known about its acquisition by children. In looking at the available CHILDES corpora, this scholar found sufficient longitudinal data in four Spanish L1 children, and counted all their instances of OBJ that should or should not be *a*-marked to see whether errors may be detected. For this reason he discounts, to our mind unfortunately, all cases where the marking is optional. From his careful analysis, Rodríguez-Mondoñedo (2008) comes to the conclusion that "children master Spanish DOM with a performance virtually errorless." This conclusion, however, is based on a conflation of results for both default and nondefault cases. Of course, both must be accounted for, but one thing is to note that children do not mark what is not marked in the input (the default case), and another is to find out how they learn to deal with the marked cases. Averaging all out, the strength of the default may well obliterate important facts. Wholly constructed from Rodríguez-

Mondoñedo's (2008) data, although following the presentation commonly used in this volume and elsewhere for SLA results, in (11) we present the pattern for his marked cases only.

(11) DOM in L1 Spanish children (after Rodríguez-Mondoñedo 2008)

A-MARKING OF OBJ	REQUIRED AND MARKED	REQUIRED AND NOT MARKED	NOT REQUIRED AND MARKED
MARIA	+24	-2	>2
KOKI	+12	-4	>3
JUAN	+8	-0	>2
EMILIO	+1	-1	>3

What seems to be clear from this perspective is, first, that the acquisitional pattern is neither as strong nor as uniform across these four children as the author asserts, and secondly, that the error rate for some of them is not insignificant, particularly for Emilio and Koki. Emilio, as it turns out, marks DOM at less than chance. Why? Rodríguez-Mondoñedo (2008) explains that Emilio is a Spanish speaking boy living in a Catalan community, and that Catalan does not have DOM, then he adds: "It has been observed already that Spanish-speaking children in bilingual communities (when one of the languages does not have DOM) drop *a* occasionally (Silva-Corvalán 1994; Luján 1996; Montrul 2004 ...)". The other interesting case is Koki, a Mexican child with Spanish-speaking mother and American English-speaking father. Previous to the recordings in Mexico, the family lived for the first six months in Poland, the next six in Argentina and two months in the US. Koki's accurate use of DOM is lower than that of the other children, except Emilio. The bilingual home and the different environments of exposure may have contributed to her pattern of DOM acquisition. This is an interesting set of facts, which together with Emilio's may help understand the consistently low accuracy with DOM – compared to native speakers within a single environment – that Montrul and her colleagues (e.g., Montrul 2008; Montrul & Bowles 2009; Montrul & Sanchez-Walker 2013), after Silva-Corvalan (1994), repeatedly find in the US with young HS, whether simultaneous or sequential bilinguals, including adult immigrants after a certain period of residence in the US.

Montrul and her colleagues attribute the difference in DOM to 'incomplete acquisition' or later 'attrition' (in the case of adult immigrants), which in turn may be due to the reduced quantity and quality of the input received by the HS bilinguals from adult HS whose spoken Spanish may itself be 'attrited' (except for recent adult arrivals). Young HS bilinguals may also undergo attrition, not unlike adult HS, under the influence of, and in convergence with, English, the dominant lan-

guage, which has no DOM. But, as Montrul & Sanchez-Walker (2013: 127) candidly admit, DOM in Spanish “is conditioned by unclear semantic and pragmatic factors. We still do not know whether DOM is primarily regulated by type of verb, type of object, other elements in the sentence or all of these”.

The nature of the Spanish-speaking environment should also be taken into account, we believe. One would wish to ask which speakers do HS communicate with in their Heritage Language? In the US there are Spanish speakers from all over the Spanish-speaking world, which would surely not be a homogenous Spanish-speaking community, as Tippets (2011) demonstrates specifically regarding the way DOM is used. On the other hand, Mexican native speakers living in Mexico can be assumed, unlike their US counterparts, to be using their language in a homogenous community, so a comparison between the two groups of speakers needs to be moderated by this basic difference. Overall, then, it would be surprising if HS, adult or younger bilinguals, in the US used DOM according to the structural factors (such as animacy and specificity) indicated by Montrul and her colleagues. Variation, as found in their results, seems to be a reasonable expectation. Furthermore, the type of task (grammaticality judgement) and the presentation of results by group means rather than by individual speakers used in their research paradigm would tend to obscure critical developmental or environmental (sociolinguistic) differences among speakers, resulting from their individual experience and pattern of exposure, as we just saw with the four children looked at by Rodriguez-Mondoñedo (2008).

Naturally enough those who have worked with Spanish L2 have found DOM rather elusive and difficult for the learners. We will look here at two studies, that is, one by Guijarro-Fuentes (2011, 2012) and the other by Farley & McCollam (2004). Guijarro-Fuentes proposes an interesting approach which he calls the Feature (In)accessibility Hypothesis, whereby DOM is the result of a number of interacting features subsumed by OBJ, some of which are structurally given (such as the grammatical relationship with the V, e.g., its ‘direct’ rather than ‘oblique’ nature of the relationship), and others are inherent in the particular OBJ (such as animacy and specificity). The latter features, which Guijarro-Fuentes calls ‘interpretable’ features in his research paradigm (cf. Lardiere 2008), are not all equally accessible to learners. He finds that ‘animacy’ is the most accessible (or learnable) of these interpretable (or inherent) features.

Farley & McCollam (2004) report on an experiment involving 29 students. They explicitly use DOM (which they call ‘personal *a*’) and subjunctive marking to test PT’s Teachability Hypothesis (Pienemann 1984). Their conclusion is that results do not support PT as presented by Pienemann (1998) and call into question the hierarchy for Spanish proposed by Johnston (1995). Following Johnston’s developmental hypotheses, Farley & McCollam reason that ‘personal *a*’ is at a much lower stage (Johnston’s stage 4, corresponding to the phrasal pro-

cedure stage in this volume) than subjunctive marking (Johnston’s stage 7, corresponding to the S-BAR procedure stage). Then, following the logic of Pienemann’s (1984) Teachability Hypothesis (i.e., learners cannot ‘skip’ a stage even with instruction), they ensure that their learners are all ‘ready’ to learn Johnston’s stage 4 (personal *a*), but that, conversely, none is ready for subjunctive marking on V in subordinate clauses. The students are then divided into four groups of 6 or 7 students each: three of the groups were instructed in each of the two structures with different treatments (explicit instruction, structured input, and processing instruction, VanPatten 1996, 2007), and the control group received no instruction on those structures. Results are collated in (12), which shows the number of learners who are deemed developmentally ready for the relevant structure, and the number of learners who have actually developed it after the treatment. Results are clearly more favourable for subjunctive marking (c. 60%) than for ‘personal *a*’ (c. 40%), even though the learners were deemed to be ready for DOM but not for subjunctive.

(12) *Global results from Farley & McCollam (2004) teachability experiment*

STRUCTURE	TREATMENT & LEARNERS	READINESS	DEVELOPMENT
OBJ MARKER	INSTRUCTED (N. = 6+7+6)	19	7
	CONTROL GROUP (N. = 6)	6	0
SUBJUNCTIVE MARKER	INSTRUCTED (N. = 6+7+6)	0	11
	CONTROL GROUP (N. = 6)	0	0

Given our discussion above regarding the nature of DOM, it seems that Farley & McCollam (2004) place it too early in the developmental path. DOM is not just morphological marking of OBJ when it is animate because, as pointed out above, not all animate OBJs are *a*-marked – they must also be specific, among other things. Furthermore, some of the tasks used in their study require a much higher structure involving the primary topicalisation of *a*-marked OBJ plus the clitic<sub>OBJ</sub>, as in (13), which introduces an extra complicating factor.

- (13) a        los viejos        no los                                respetan        los jóvenes  
           a-DOM the old-PL.MASC no they-Cl.ACC.PL.MASC respect-3.PL the young-PL.MASC  
           [(as for) the older people, young people don’t respect them]

This is definitely not a phrasal procedure stage structure because it calls for higher level resources, in particular the S-procedure and full functional assignment (cf. Di Biase & Kawaguchi 2002, and § 3.1, ch. 3 this volume, for a parallel structure in

Italian). That is, the learner must distinguish not only SUBJ from OBJ, but also differentiate among types of OBJ, one of which must be also distinguished from OBL<sub>DAT</sub>. The initial XP *a los viejos* ('[a] the elderly') looks like a 'garden path' DAT. If differentiation fails, the clitic may be wrongly case-assigned. On top of all that, the construction in (13) also displays marked word order: TOP<sub>OBJ</sub> Cl<sub>ACC</sub>-V SUBJ. Hence, it is definitely on the higher stages of L2 learning. This discussion naturally leads into our PT-based hypothesis, which takes into account the relevant facts for a more precise location of DOM in the development of L2 Spanish.

### 3. The developmental hypotheses

The structure we are focusing on in this chapter – that is, the language-specific DOM – is expressed by means of a morphological marker on OBJ. As such, we begin by placing it in (14) within our morphological development hypothesis for Spanish L2, in line with the current proposals for PT outlined in chapter 1 of this volume (cf. also the Italian schedule, ch. 3). That is, the morphological schedule, whose structures are obligatory, is presented separately from the syntactic schedules based on the Prominence Hypothesis and the Lexical Mapping Hypothesis which, on the other hand, represent speakers' choices largely related to discourse-pragmatic factors. Hence, given that DOM sits at the intersection of the syntax-semantics and syntax-discourse interfaces, we need to discuss it within the Prominence Hypothesis and the Lexical Mapping Hypothesis.

Like other morphological schedules in previous chapters of this volume, the one for Spanish exhibits a developmental path beginning with single words and formulas followed by lexical-level morphemes such as the plural *-s* in Ns. Spanish has a largely regular masculine/feminine gender marking and its plural morpheme *-s* is fairly easy to segment. For example, *maestra/maestro*, female and male 'teacher' respectively, become *maestras/maestros* for their plurals. For these procedures requiring lemma access and category marking no unification of features is required.

Learners who are able to process the next procedure, that is unification of features within the phrase, are minimally able to unify the value of one feature, such as [plural], at the phrasal node. Our schedule in (14) reflects this agreement at the NP node where the attributive plural form *americanos* ('American') agrees with the head N *coches* ('cars'), or the VP agreement between the predicative adjective *grandes* ('big' PL) with the plural form of the copula *son* ('are'). This is the stage at which Farley & McCollam's (2004), following Johnston (1995), placed DOM. In our view, it is possible that *a*-marked OBJs may appear at this stage – as well as OBLs expressed by PPs (e.g., dative, locative) – but only if DOM were understood simply as a structural morphological mark-

(14) Developmental stages hypothesised for L2 Spanish morphology, identifying the location of DOM

PROCESSING PROCEDURE	MORPHOLOGY OUTCOME/ STAGE	SPANISH-SPECIFIC STRUCTURE	EXAMPLE
S-BAR PROCEDURE	INTERCLAUSAL MORPHOLOGY	subjunctive marking in subordinate clause	<i>me parece ridículo que cada familia tenga dos coches</i> [to me it seems ridiculous that each family has two cars]
S-PROCEDURE	INTERPHRASAL MORPHOLOGY	PP <sub>TOP</sub> (SUBJ) Cl <sub>ACC</sub> V [= DOM]	<i>a la maestra Juan la vió ayer</i> [(PREP) the teacher, Juan saw (her) yesterday]
		XP <sub>TOP</sub> (SUBJ) Cl <sub>ACC/DAT</sub> V	<i>Salzburg lo he visitado una vez</i> [Salzburg I have visited once]
		SUBJ <sub>PL</sub> COP <sub>PL</sub> PRED ADJ <sub>PL</sub>	<i>los perros son buenos</i> [the dogs are good]
		SUBJ <sub>PL</sub> V <sub>PL</sub> agreement	<i>los niños corren</i> [the children run 3 PL]
PHRASAL PROCEDURE VP	PHRASAL MORPHOLOGY	COP <sub>PL</sub> ADJECTIVE <sub>PL</sub> agreement	<i>son grandes</i> [are big PL]
PHRASAL PROCEDURE NP		NOUN <sub>PL</sub> ADJECTIVE <sub>PL</sub> agreement	<i>coches americanos</i> [American PL cars]
CATEGORY PROCEDURE	LEXICAL MORPHOLOGY	plural marking on nominals	<i>árboles</i> [trees]
			<i>bonitos</i> [beautiful PL]
LEMMA ACCESS	INVARIANT FORMS	single words, formulas	<i>hola</i> [hallo] <i>me llamo Pat</i> [my name is Pat]

er within the VP. However, we have seen that other syntactic considerations are involved, which require full functional assignment, e.g., the differentiation of OBJ from SUBJ via SUBJ-V agreement, which in turn relies on the S-procedure being in place. This is where the positional lock on SUBJ and OBJ is opened and even a postverbal SUBJ may be still identified as such. Thus DOM is best placed at the S-procedure stage, where unification happens at the node(s) adjoining different phrases.

In our schedule then, at the S-procedure stage, as well as sentences exhibiting the familiar SUBJ-V agreement, we may find also DOM, both in its canonical postverbal position (but note that OBJ does not require any morphological

agreement in such case) or as primary TOP in preverbal position, in a sentence equivalent in structure to (13), an example borrowed from Farley & McCollam's (2004) DOM tasks. In this case, unification must occur between the gender and number of the N in the NP *a la maestra* ('PREP the teacher') and the ACC clitic of V. The full justification for placing DOM here rather than at the phrasal procedure stage will be clearer shortly when we deal with syntax.

The final stage on our morphological schedule is aligned with Farley & McCollam (2004) and Bonilla (2015), and concerns the S-BAR procedure stage, which in Spanish contains those constructions in which the relationship between main and subordinate clauses must be marked through V inflection. Thus, in (14), the subjunctive V form *tenga* ('should have') in the subordinate clause is compatible with the epistemic *me parece ridículo* ('to me, it seems ridiculous') in the main clause.

As we argued above, DOM is an optional structure sitting at the interface of the syntax-discourse and syntax-semantics interface, hence it will be further discussed in the next two schedules for syntactic development. In (15) the developmental progression covered by the Prominence Hypothesis for declarative sentences is broadly laid out (cf. § 4.2, ch. 1, this volume, and also §§ 3.1, ch. 2 for English, ch. 3 for Italian, and ch. 4 for Japanese).<sup>7</sup> This hypothesis relates to word order, canonical and otherwise, which respond to discourse-pragmatics constraints. These may also operate through other means, and prominence may be achieved by means of prosody, for instance, or indeed morphology, as well as word order. Thus we now focus on the location of DOM within the Prominence Hypothesis schedule in (15).

In this schedule we hypothesize, as with other languages, that learners will start from the canonical word order, which in Spanish is SVO. Furthermore, because Spanish is a prodrop language, the majority of canonical utterances are VO (cf. Bonilla 2015). In principle there is no reason why DOM should not be located here. However, at this stage learners have not learned yet to differentiate anything much inside the canonical order, and distinguish OBJ from SUBJ merely by their position. So all OBJs are equally underspecified and their animacy or inanimacy would make no difference for early-to-high intermediate learners, especially if their L1 does not differentiate such OBJs (which is the case, e.g., for English, Japanese and Catalan). Likewise, at the next stage, a topicalised adverbial phrase leaves the core elements of the canonical block unaltered. So, if a potentially differentiable animate OBJ is produced, again the learner would not

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7 Questions are extensively treated elsewhere in this book; cf. ch. 2 for English, and ch. 8 for Italian respectively, but also ch. 9 for German.



(15) *Developmental stages hypothesised for L2 Spanish syntax, identifying the location of DOM within the Prominence Hypothesis*

STAGE	STRUCTURE	SPANISH EXAMPLE
NONCANONICAL WORD ORDER	(PP <sub>TOP</sub> ) (SUBJ) Cl <sub>ACC</sub> V ADJ = [DOM]	<i>a la maestra Juan la vio ayer</i> [(PREP)the teacher Juan saw (her) yesterday]
	SUBJ V OBJ <sub>TOP2</sub> = [DOM]	<i>Juan vio a la maestra</i> [Juan saw (PREP) the teacher]
	XP <sub>TOP</sub> (SUBJ) Cl <sub>ACC/DAT</sub> V	<i>Salzburg lo he visitado</i> [Salzburg I have visited]
XP <sub>ADJ</sub> CANONICAL WORD ORDER	XP <sub>TOP</sub> (SUBJ) V OBJ	<i>ahora Juan tiene dos hermanos</i> [now Juan has two brothers]
		<i>en Sydney tengo bicicleta</i> [in Sydney I have a bicycle]
CANONICAL WORD ORDER	(SUBJ) V OBJ	<i>Juan tiene amigos</i> [Juan has friends]
		<i>Juan tiene coche</i> [Juan has a car]
LEMMA ACCESS	<i>words, formulas</i>	<i>me llamo Pat</i> [my name is Pat]

be able to differentiate it inside the blocked string. It is important to note, however, that at both stages we will find animate arguments which are not *a*-marked but nevertheless grammatical, such as in (16).

- (16) a. Juan tiene amigos  
[John has friends]
- b. ahora Juan tiene dos hermanos  
[now John has two brothers]

As we have seen in § 2, the feature [+animate], however central, is insufficient by itself for OBJ to be *a*-marked and needs to be accompanied by other features such as [+specific], which is linked to discourse. So we place DOM at the next stage, the noncanonical word order stage, even though its descriptor may not be quite adequate given that the actual word order for sentences like *Juan vio a la maestra* ('Juan saw PREP the teacher') looks perfectly canonical. Recall that passives also look pretty canonical in this regard (e.g., in English as well as in Spanish), but this does not mean that we place them at the default stage. In any case, this is the stage at which full (i.e., independent of position) functional assignment must be assumed to free up word order, because GFs are marked morphologically or by other means. The learner at this stage must also be able

to differentiate core arguments from each other and from non-core arguments as well as match prominence features, that is, [ $\pm$ prominent,  $\pm$ new], with the appropriate constituent, whichever the order. Notice in particular that this *a*-marking has little or no role to play in the grammatical relations of the OBJ (which remains OBJ whether or not it is *a*-marked). What the preposition marks here, by morphological means, is the ‘secondary prominence’ of an argument mapped onto an OBJ that shares in the ‘aboutness’ of the sentence, and often, but not always, is animate and agentive-like (cf. morphologically marked prominence in Japanese, ch. 4, this volume). This *a*-marking is maintained also when the speaker promotes such a differentially marked OBJ as primary topic, as in (13). So our representation of constructions such as these shows up in both the morphological and the syntactic schedules, because the former, in (14), reflects the required feature unification ensuring that the TOP constituent is correctly interpreted as NON-SUBJ, and the latter, in (15), reflects discourse-generated word order differences. In the end, because we characterise the differentiated OBJ as bearing a TOP<sub>2</sub> function in the spirit of Dalrymple & Nikolaeva (2011), it seems reasonable to place it within the Prominence Hypothesis schedule and at the noncanonical stage, in contrast to earlier interpretations of it as an exclusively morphological structure.

Let us now turn, briefly, to the Lexical Mapping Hypothesis for Spanish in (17), because DOM straddles across the syntax-semantic interface as well. We noted for instance that the largest measure of agreement on the actual usage of DOM reported by Tippetts (2011) across three metropolitan varieties of Spanish relates to a lexical semantic feature, that is, [animacy], with the highest ranking for the discourse-based ‘relative animacy’ in two of the metropolitan areas considered (Buenos Aires and Madrid) and second rank in the remaining area (Mexico City).

After the universal single word and formula stage, the development of lexical mapping begins with V representing actions/states and with default mapping of the higher ranking agent/actor on N preceding the theme/patient represented on the other N. The prevailing VO default is unlikely to pick a differentially marked OBJ since the majority (61% to 67%, according to Tippetts 2011) of OBJs in the input are not marked. Hence learners are hypothesized to treat all OBJs in the same way, whether animate or inanimate, specific or not specific, definite or indefinite. In other words, the links to critical semantic features and discourse are, at this stage, absent. Proceeding upward, learners begin to increase their stock of complements with arguments additional to their default string. Crucially, additional arguments must be differentiated from the default core arguments, particularly from OBJ given the prodrop nature of the Spanish SUBJ. This is exactly the stage where the semantics of the additional arguments, through their prepositions, makes more transparent their relationship with V. So OBL<sub>DAT</sub> for goal or beneficiary will com-

(17) *Developmental stages hypothesised for L2 Spanish syntax, identifying the location of DOM within the Lexical Mapping Hypothesis*

STAGE	CONSTRUCTIONS	SPANISH EXAMPLE
NONDEFAULT MAPPING	unaccusatives, passives, causatives, impersonals, exceptional V constructions	<i>Juan fue empujado por el ladrón</i> [Juan was pushed by the robber] <i>a ella le gustan las plantas</i> [she likes plants] <i>disminuye el tráfico</i> [traffic decreases]
	<b>DOM</b>	<i>yo conozco a un médico</i> [I know (PREP) a doctor]
DEFAULT MAPPING AND ADDITIONAL ARGUMENTS	agent/experiencer mapped on SUBJ, patient/theme on OBJ and other roles on OBL arguments	<i>José da pan a los niños</i> [José gives bread to the children] <i>ahora vivo en Barcelona</i> [now I live in Barcelona]
DEFAULT MAPPING	agent/experiencer mapped on SUBJ, patient/theme mapped on OBJ	<i>Juan tiene amigos</i> [Juan has friends] <i>Juan compra manzanas</i> [Juan buys apples]
LEMMA ACCESS	single words, formula	<i>me llamo Pat</i> [my name is Pat]

monly be animate, as in (18a), whereas OBL for location, instrument, and so on, will not, as in (18b).

- (18) a. José da pan a los niños  
[José gives bread to the children]
- b. ahora vivo en Barcelona  
[now I live in Barcelona]

These OBLs are usually processed after the core argument(s) and are differentiated from OBJ on account of position, as well as by the presence of a preposition. Given that this stage is still characterised by default mapping (plus additional argument), it is unlikely that DOM could be acquired at this point, because the semantic role mapped on OBJ (theme or patient) is still assigned by default and the additional arguments need to be differentiated from it. Nevertheless, the marking of different OBLs with a variety of prepositions is another step towards distinguishing animate arguments (other than SUBJ) from inanimate ones. In other words, the learner is moving towards building the semantic interface with syntax, a resource for becoming able to mark OBJs differentially.

The next and highest stage on this schedule includes all nondefault mappings which account for alternative, pragmatically motivated constructions such as passives and complex constructions such as causatives. This higher stage is where hierarchical correspondences (such as the agent role mapping on the SUBJ function) are subverted if the speaker's communicative intention or lexical choice requires it. Hence we can expect at this stage to find scope for a more confident differentiation of arguments, including differentiation between OBJs, mostly involving animacy and specificity among other constraints. It seems to us then a fairly safe stage at which to place the emergence of DOM on this developmental schedule, although its marginal optionality may still elude or confuse the learner for a long time, leading to persistent errors.

In sum, our presentation of the three developmental schedules for morphological development and syntactic development along the Prominence Hypothesis and the Lexical Mapping Hypothesis allows us to hypothesize, in (19), an implicational hierarchy for acquiring DOM in L2 Spanish.

(19) no marking of OBJ > marking of [ $\pm$ animate] OBLs > DOM > topicalised DOM

Overall one must bear in mind, however, that achieving either the S-procedure stage or the distinction between animate and inanimate arguments does not guarantee that DOM will be fully deployed by the learner, given, among other things, its interface with discourse prominence. Positive evidence will be the morphological *a*-marking of OBJ with transitive Vs. A higher level of evidence is obtained when the learner also produces a TOP which is *a*-marked (even if inanimate), which is coreferential (i.e., it shares number and gender features) with the ACC clitic marker of OBJ on the V, as in (13) above.

#### 4. The study

Our cross-sectional study of six learners of Spanish L2 is guided by a single research question: do learners of Spanish L2 acquire DOM at the hypothesised developmental points in the PT schedules proposed in § 3?

##### 4.1. Informants and tasks

The six learners in this study are Austrian German-speaking students. Their participation in the research project was voluntary and they all signed the relevant consent form. All of them are 19-year old females who have been studying Spanish in a formal school setting for three years, totalling approximately 260 hours of

instruction, attending the same Spanish class in the same school given by the same teacher and thus having been exposed to the same classroom material. In addition to formal instruction, half of the students had gained exposure to natural input in Spain: two of them, BEN and JAN (all names are code names) spent three months in Spain, and one (VES) spent one month there, as can be gleaned from a questionnaire administered to participants to gather information about their language background. Instruction sessions over the two semesters of observation were digitally audio-recorded and later transcribed and analysed. From this analysis it transpires that explicit instruction on the subjunctive and DOM, the structures on focus in this article, did not receive the same time allocation. Subjunctive constructions were dealt with extensively from the end of the second year of instruction onwards, whereas DOM was only dealt with in the second year and to a much lesser extent (Hinger 2011).

In order to elicit spontaneous oral production data, the learners were administered two tasks in a single session outside of their classroom environment for 15 minutes on average. These task sessions also were digitally audio-recorded and later transcribed and analysed. The first task is a classical communicative information gap taken in pairs, the second a monologic task. Students picked their pair themselves with no linguistic criteria applied in reference to pairing. The two tasks consist of written and visual prompts “providing information about the context, the content and the purpose” (Tankó 2005: 42) of the oral production. The topics chosen referred to contents of the ongoing Spanish classroom teaching, though neither the task types nor the task goals and requirements had in any way been rehearsed. The monologic task aims at eliciting oral production relating to the environmental problems caused by pollution, and the learners are given a visual and written prompt (in Spanish) on the consequences of pollution for humanity, and are encouraged to provide ideas to help stopping climate change. The interactive task focuses on the situation of renting a room in the target country, namely in the capital of Spain, Madrid. The two partners were given different roles described on cards written in Spanish. Partner A was provided with the information of living on her own in a flat which she wants to share with a Spanish native speaker because she spends some time in Madrid in order to improve her language knowledge. A picture of the flat was also shown to partner A for her to describe the flat to partner B, who phoned after reading an announcement in the paper. So, partner B has the role of a Spanish native speaker hunting for a room in Madrid. She is especially attracted by an announcement in the paper made by an Austrian because she had spent some time in Austria and was keen to practice her German. In the end, she decides not to hire the room and needs to find some explanations. In both tasks, the researcher role was that of facilitator and occasional interlocutor in order to help overcome situational problems such as anxiety by reassuring and motivating learners, nonverbally and verbally, to continue their talk.

The tasks were successful in eliciting a corpus of a total of 4,564 tokens and 1,529 types of Spanish lexical items distributed in 486 clauses, an average of about 94 clauses per informant, as shown in (20). The minimum number of clauses uttered is 35 by GRA, the maximum 151 by JAN. These differences cannot be attributed to the three month experience in Spain by JAN because informant BEN, for instance, also spent the same amount of time in the target country and produced 80 clauses and 738 tokens, both being less than those of informant ROS, who had never visited a Spanish-speaking country.

(20) *The corpus for the six learners*

	GRA	VES	TAN	ROS	BEN	JAN	TOTAL	MEAN
WORD TOKENS	370	611	376	1.025	738	1.444	4.564	760.67
WORD TYPES	164	224	174	323	241	403	1.529	254.83
CLAUSES	35	55	49	116	80	151	486	93.90

4.2. *Results and analysis*

In this section we present the results concerning first morphological development and then syntactic development.

With regard to their current morphological development in terms of classic PT (Pienemann 1998), all of the informants have achieved the S-procedure stage, and three of them also the S-BAR procedure stage, as shown in (21).

(21) *Cross-sectional study of morphological development in L2 Spanish*

STAGE	STRUCTURE	GRA	VES	TAN	ROS	BEN	JAN
S-BAR PROCEDURE	subjunctive marking in subordinate clause	-2		-4	+3 -3	+2 -1	+4
S-PROCEDURE	TOP <sub>PP</sub> Cl <sub>ACC</sub> V (SUBJ)						
	TOP <sub>XP</sub> Cl <sub>ACC/OBL</sub> V (SUBJ)			+2	+1		+3
	SUBJ <sub>PL</sub> COP <sub>PL</sub> adjective <sub>PL</sub>	+1 -2	+1 -1	+1	+2 -2	+1	+4
	SUBJ <sub>PL</sub> V <sub>PL</sub>	+2	+8	+4	+6	+3 -1	+12
PHRASAL PROCEDURE	COP <sub>PL</sub> adjective <sub>PL</sub>	+1	+2	+1		+2	+3 -1
	N <sub>PL</sub> adjective <sub>PL</sub>	+5	+11	+6	+9 -2	+10	+29
CATEGORY PROCEDURE	N <sub>PL</sub>	+5	+5	+4	+18	+6	+20

+ = supplied; - = not supplied; empty cell = no context

Looking at the figures within the S-procedure stage, we can see that three learners (GRA, VES and ROS) are still uncertain with the agreement between SUBJ and adjective, but they do, like all the others, manage unification on the plural agreement between SUBJ and lexical V without fail.<sup>8</sup> It may be the case that the copular clause absorbs greater processing resources because COP itself, placed between the SUBJ and the predicative, also has to unify its [number] feature with both the SUBJ and the predicative adjective. A possible case of a 'soft barrier' (cf. § 5, ch.1 and further ch. 2, § 2 for English, and ch. 3, § 2.2 for Italian, this volume). Nevertheless, despite the low return on this structure, some good indicators of functional assignment are in place, as exemplified in (22a-b).

- (22) a. TAN los profesores no son idoles [target: idolos]  
 the professors-PL no are-PL idols-PL  
 [the teachers are not idols]
- b. VES los jóvenes pueden cambiar algo  
 the young-PL can-PL change something  
 [young people can change something]

What seems to be rather harder to produce at this stage is topicalisation involving unification between an XP<sub>TOP</sub> with the clitic marking the OBJ (23a) or OBL (23b) function on V, because the clitic must have both the grammatical function (ACC or DAT respectively) that the displaced XP would have in its default position in the sentence, and the same number and gender features as the N in the XP.

- (23) a. TAN Schwaz ah lo conozco  
 Schwaz-SG.MASC ah it-CL.ACC.SG.MASC know-1.SG  
 [Schwaz (a town in Austria), I know]
- b. JAN a ella también le gustan las plantas  
 to her-3.SG.FEM also she-CL.DAT.3.SG.FEM like-3.PL the plants-PL  
 [she also likes plants]

Topicalisations involving OBJ or OBL are quite rare: only 6 were found in the whole database, and notice also that none of the learners produced a topicalised differentially marked OBJ. These constructions are other prime candidates for 'soft

8 Note that SUBJ & V agreement is only counted when SUBJ is expressed lexically or pronominally. Getting the right V-form with null SUBJ is part of categorial learning (cf. § 2.1, ch. 3 on Italian, this book).

barriers' because, additionally to feature unification, they involve word order choices triggered by discourse-pragmatic constraints.

At the next, S-BAR procedure stage, we find three learners. One is ROS, who satisfies the emergence criterion for subjunctive morphology because she has three positive occurrences with lexical and structural variation (cf. § 5, ch. 1, this volume). Her accuracy, however, does not go beyond 50%. The one thing she misses in three of her otherwise well constructed sentences is precisely the morphological shape of V in the subordinate clause, as in (24), where she provides the default indicative rather than the subjunctive V-form.

- (24) ROS no creo que necesito lámparas todo el día  
 no believe-1.SG that need-1.SG.INDICATIVE lights all day  
 [I don't believe that I need lights all day]

The other two learners also produce several contexts of this higher level structure, and the task canvassing opinions about a controversial issue which young people care about was clearly successful in pushing informants to attempt it. However, again, like ROS in (24), BEN's morphological V-form is the default indicative in one case and the required subjunctive mood in two cases, as in (25a), whereas JAN consistently marks V in the subordinate clause with the subjunctive mood, as in (25b).

- (25) a. BEN no hace falta que cocinen una cosa exótica  
 not has need that cook-3.SG. SUBJUNC a thing exotic  
 [there is no need (that she) cooks an exotic thing]
- b. JAN es muy importante que la gente tenga más respecto  
 is very important that the people-SG have-3.SG.SUBJUNC more respect  
 [it is very important that people show more respect]

Let us now turn, to our learners' syntactic development with results shown in (26) focusing on DOM, that is, to the TOP<sub>2</sub> features of some animate OBJs, as identified in the Prominence Hypothesis in (15).

As we have mentioned, the overall frequencies of DOM structures are not abundant in our corpus. This is due, at least in part, to the fact that, as in other chapters of this volume, the counting for valid syntactic structures includes lexical V to the exclusion of copular and presentative sentences, whose word order responds to specific constraints and are preferably analysed separately.

All our learners produce canonical word order, which is the foundational syntactic stage, and at least one structure from the next stage, the XP canonical word order stage. Four of them also produce at least one OBJ or OBL topicalisation, as



(26) Cross-sectional study of syntactic development in L2 Spanish identifying the position of DOM within the Prominence Hypothesis

STAGE	STRUCTURE	GRA	VES	TAN	ROS	BEN	JAN
NONCANONICAL WORD ORDER	<b>(PP<sub>TOP</sub>) Cl<sub>ACC</sub> V (SUBJ)</b>						
	<b>(SUBJ) V OBJ<sub>TOP2</sub> [= DOM]</b>	-1	-1	1	-2	-2	3
	(NP <sub>TOP</sub> ) Cl <sub>ACC</sub> V (SUBJ)			2			
	(PP <sub>TOP</sub> ) Cl <sub>DAT</sub> V (SUBJ)				1	1	5
XP <sub>ADJ</sub> CANONICAL WORD ORDER	XP <sub>ADJ</sub> (SUBJ) V OBJ	1	2	2	2	4	5
CANONICAL WORD ORDER	(SUBJ) V OBJ	6	6	6	11	16	15

exemplified in (23), which characterises them as higher intermediate learners. As for DOM, all learners produce at least one potential context for it, that is, a sentence with an animate OBJ with a sufficient specificity load, but not all of them *a*-mark it. GRA and VES for example never do – regardless of animacy or specificity they seem to regard all OBJs the same, as exemplified in (27a-d).

- (27) a. GRA tengo otras ofertas  
have-1.SG other offers (not animate)  
[I have other offers]
- b. GRA tengo una amiga  
have-1.SG a friend (animate, not specific)  
[I have a friend]
- c. GRA voy a llamar mi amiga  
go-1.SG to call ø-DOM my friend (animate and specific)  
[I am going to call my friend]
- d. VES pero ahora no tengo otra persona  
but now no have-1.SG ø-DOM other person (animate and specific)  
[but now I don't have anyone else]

It is crucial to note here that (27a-d) provide a contrastive key to our analysis: as against (27a) with a [-animate] OBJ, both (27b and c) have animate OBJs. However, *una amiga* ('a friend') in (27b) is not specific, and is therefore counted among the 6 canonical word order structures produced by GRA in (26). By con-

trast, *mi amiga* ('my friend') in (27c) by virtue of the possessive determiner is quite specific, and is therefore counted as  $-1$  for  $\text{OBJ}_{\text{TOP}2}$  [= DOM] because it should have been *a*-marked. Similarly, *otra persona* ('another person') in (27d) is counted as  $-1$  because it appears to have sufficient specificity in the discourse to be *a*-marked as  $\text{OBJ}_{\text{TOP}2}$ , but VES does not *a*-mark it. An interesting case is provided by ROS in (28), where *la tierra* ('the earth') is a [-animate] OBJ, but the intended meaning ('I love the earth' rather than 'I want the earth') would likely trigger DOM (cf. the contrast in (10c-d) and note 4). Given that this learner has achieved the top stage of morphological development (subjunctive marking), it is plausible to assume that she could mark DOM when discourse conditions may require it, but she does not.

- (28) ROS yo quiero la tierra  
 I love-1.SG ? $\emptyset$ -DOM the earth (not animate, specific, prominent)  
 [I love the earth]

Four out of our 6 learners behave within this pattern of not differentiating OBJs. The exceptions are TAN and JAN, with one and three differentially marked animate OBJs respectively, as in (29a-c), where DOM is produced in what appears to be the appropriate environment for it.

- (29) a. TAN conozco a algunas personas  
 know-1.SG a-DOM some people  
 [I know certain people]
- b. JAN yo conozco a un médico  
 I met-1.SG a-DOM a doctor  
 [I met many people from all over the country]
- c. JAN conocí a mucha gente de todo el país  
 met-1.SG a-DOM many people from all the country  
 [I met many people from all over the country]

Notice that the two learners who produce DOM are the only ones who produce more than one topicalised OBJ (TAN) or OBL (JAN). Notice also that JAN, the only informant with sufficient evidence for marking  $\text{TOP}_2$ , does not produce a DOM structure as primary TOP, and neither does anybody else. Such production would be the best evidence that the learner may not be conflating DOM with DAT because the clitic anaphora in such cases would have to be ACC even though the coreferential DOM TOP is expressed by a PP. We nevertheless choose to leave the structure in our implicational hierarchy, to be tested on a richer database.

Out of the four learners who do not produce DOM, two of them (ROS and BEN) appear to be in a state of readiness for DOM, both producing at least one topicalised structure with a DAT clitic, as in (30a-b). Though both expressions sound fairly idiomatic, not all learners use them.

- (30) a. ROS a ti te interesa mucho  
 to you you-Cl.DAT.2.SG interest-3.SG much  
 [to you it is very interesting]
- b. BEN a mí me da igual  
 to me I-Cl.DAT.1.SG give-3.SG same  
 [to me it is the same ]

To round up the result section we now present in (31) the analysis for the Lexical Mapping Hypothesis as shown in (17).

(31) Cross-sectional study of syntactic development in L2 Spanish identifying the position of DOM within the Lexical Mapping Hypothesis

STAGE	CONSTRUCTIONS	GRA	VES	TAN	ROS	BEN	JAN
NONDEFAULT MAPPING	passives and exceptional Vs		2		1	3	5
	<b>DOM</b>	-1	-1	1	-2	-2	3
DEFAULT MAPPING AND ADDITIONAL ARGUMENTS	agent/experiencer mapped on SUBJ, patient/theme on OBJ and other roles on OBL arguments	2	7	3	6	7	10
DEFAULT MAPPING	agent/experiencer mapped on SUBJ, patient/theme mapped on OBJ	5	8	7	11	15	15

We cannot help but notice again the paucity of production in the nondefault mapping stage. Given the highly marked or inherently lexical nature of constructions such as passives, causatives, impersonals, and exceptional Vs, this is not surprising in spontaneous speech. As a matter of fact, only JAN produces a passive construction, and all other figures in the top row of (31) refer to three Vs: *gustar* ('like'), *interesar* ('interest') and *parecer* ('seem'), which map the lower ranking theme role on postverbal SUBJ. DOM constructions are also placed in this schedule because of their semantics/syntax interface character, as discussed at the bottom of § 3. Their figures, naturally, are the same as in (24), which looks at them in terms of TOP<sub>2</sub>. Here it is worth noting that JAN, the strongest DOM performer, is also the one with the greater range of nondefault constructions.

### 4.3. Discussion

Our developmental results for morphology in (21) and syntax in (26) and (31) are compatible with the PT hypotheses in (14)-(15) and, essentially, also (17). We can see from (21) that morphological resources are available to all learners up to the S-procedure stage, so they can all handle functional assignment unequivocally. Three learners have also achieved the higher S-BAR procedure stage, which means they can handle at least some subjunctive constructions. This state of affairs appears to be corroborated for syntax in (26), in so far as four learners are able to use some marked word orders, which also assume unequivocal functional assignment, and in (31), which shows they can handle nondefault mapping operations.

Despite the high stages achieved, only two of the learners apply DOM. The other four do produce some contexts for DOM, but do not *a*-mark OBJ. In both the learners who use DOM, the particular feature that seems to be relevant is animacy, but also specificity. This result partly coincides with Guijarro-Fuentes' (2011, 2012), as well as with Tippetts' (2011) indication that animacy is the primary factor favouring DOM in his corpus-based study. The other features, such as specificity, may be tied up more with the current discourse model of the speaker. So it seems appropriate to place DOM high in the syntactic sequence within the Prominence Hypothesis space, where full functional assignment is assumed, and learners become capable of assigning prominence to any arguments. We have argued that DOM is to be placed also at the top stage of the Lexical Mapping Hypothesis, and this also has some support in the results. If we treated DOM as a purely morphological marker we would place it, with Johnston (1995) and Farley & McCollam (2004), at the phrasal stage because it is part of PP within VP. As we have seen this is not the whole story, and our results confirm the multifaceted nature of DOM. At bottom its use or nonuse is at a crossroad, an interface constrained by information which is semantic (animacy), syntactic (unambiguous OBJ identification) and discourse-related (specificity, definiteness, relative animacy, prominence), as well as socio-dialectal, as Tippetts (2011) amply demonstrates.

Focusing on discourse now, discourse-related processing instructions (e.g., [make argument X prominent]) are part of the preverbal message, which instigates the lexical selection process (cf. Levelt 1989: 98-99; cf. § 2.1, ch. 1, this volume). These instructions about the assignment of prominence, itself an option exercised by the speaker, will then be carried out by the lexical choice. The chosen lemma in turn will include its morphological instructions – in the case of DOM whether the *a* marker is required or not.<sup>9</sup> In other words, the lemma receiving the prominence

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9 This reflects our theoretical position, which should be subjected to research into the processing of prominence – as yet an under-represented area in speech processing research.

instruction checks its grammatical function (i.e., OBJ) and, if SUBJ is already syntactically prominent (i.e., default TOP), then OBJ assumes its prominence (i.e., TOP<sub>2</sub>) by other (e.g., prosodic and morphological) means, which in Spanish is the so-called personal *a*.

Indeed the morphology results indicate clearly that it is not enough for learners to be at the interphrasal stage – or even the interclausal S-BAR stage (stage 7 in Johnston's (1995) stages) – to be able to mark OBJ differentially. Both ROS and BEN, for instance, are at the top of the morphological schedule, and yet, having produced clear contexts for DOM, they are not using it. On the other hand JAN, like BEN, is able to mark S-BAR procedure as required for many subjunctive clauses in Spanish, but, unlike her, she does mark DOM. More surprisingly TAN, who is not at the S-BAR stage for morphology, is nevertheless able to mark DOM when the occasion arises. Her single occasion is valid evidence because she is also capable of topicalising OBJ.

So, in light of the similarity with Farley & McCollam's (2004) results considered in § 2, we may ask whether DOM is a necessary resource for processing subjunctive clause marking. The answer appears to be negative, because DOM is to some extent optional. Furthermore, DOM is just one of the structures requiring the S-procedure, and PT predicts that S-BAR procedure structures will appear after the emergence of *any* S-procedure structures (all learners in this study have acquired one or more S-procedure structures). Hence there is no contradiction within PT if a learner does not exhibit DOM and achieves subjunctive marking at the same time. Our results appear to support the specific implicational progression proposed in (19) within an overall developmental framework. The last step hypothesised in this progression awaits validation from a richer database.

On the overall evidence, it may be said that the S-procedure is a necessary resource for DOM to be marked, but not a sufficient condition, since discourse factors are also involved. This means that there must be a sufficient degree of control, or automatism, of more basic (e.g., lexical, phonological, and morphological) components for the learner to be able to integrate specific discourse-pragmatic information (cf. the discussion on the interface between morphological and syntactic development in § 4.3, ch. 1, this volume).

## 5. Conclusion

In this chapter we have engaged in an exploration of the acquisition of DOM in L2 Spanish and shown that current PT is capable of accounting for the optionality of its use in processing terms – that is, discourse-pragmatic information needs to be integrated online with semantic and syntactic information, which in turn requires morphological resources.

In terms of our research question – whether learners of L2 Spanish acquire DOM at the hypothesised developmental points in the PT schedules proposed in § 3 – the answer is positive. We have thus placed DOM within a developmental framework and indicated a specific implicational trajectory. Despite an important limitation in terms of data robustness, it is also clear that our results are compatible with those found by Guijarro-Fuentes (2011, 2012), in the sense of pointing to animacy as the default feature for marking DOM, as supported also by Tippetts' (2011) corpus work. They are also similar to Farley & McCollam's (2004), but our approach offers a detailed and multifaceted explanation for the phenomenon. With more robust, possibly longitudinal, data sets other acquisitional issues may be addressed, such as those surrounding DAT marking and clitics, as pointed out repeatedly in Montrul's work, the sociolinguistics of DOM in expatriate communities and its development in L1, as initiated by Rodríguez-Mondoñedo. Fully developmental studies are then desirable, and may clarify complex issues better than highly focused work on single phenomena.