

17 Word Order in Second Language Spanish

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17.1 Introduction

Second Language Acquisition (SLA) researchers in the 1990s were initially concerned about whether learners could reset the parameters that constrain word order (e.g., verb-raising parameter) and later about whether they could acquire the linguistic features of those parameters (see Sánchez and Toribio 2003 for an overview). But the current research agenda has shifted to whether learners can acquire word order when constrained at the interface between syntax and other cognitive modules (e.g., lexicon-syntax, syntax-semantics, and syntax-discourse interfaces), as will be seen in this chapter.

Spanish has been traditionally classified as a “free” and “flexible” word order language, since certain alternations are possible other than the canonical SV(O), e.g., *Los bomberos valientes/Los valientes bomberos*; *Una mujer gritó/Gritó una mujer*; *Leí el libro/El libro lo leí*, as in examples (3), (12), (13), and (20) below. But this apparent flexibility is constrained by semantic and information-structure factors. Depending on their L1, the learning task for learners of Spanish is to acquire the (dis)allowed word order alternations (syntax) plus their corresponding different semantic/pragmatic nuances (interpretation). Many of these interpretations represent a classic POS (poverty of the stimulus) phenomenon since they are (i) very subtle, (ii) neither obvious nor inferable from the input, and (iii) neither typically covered in Spanish language textbooks nor explicitly taught in the classroom. The investigation of word order also gives us insights about other key issues in SLA, e.g., the interfaces (how the learners’ syntax interfaces with other modules such as the morphology, the lexicon, the semantics, and the discourse); L1 transfer; overgeneralization of syntactic patterns; the development of L2 syntax in stages; and the role of Universal Grammar (UG) in L2 syntax acquisition.

This chapter reviews key L2 Spanish studies on the acquisition of word order alternations inside the Noun Phrase (NP) (Section 17.2), the sentence (Section 17.3), and the left periphery of the sentence (Section 17.4). Section 17.5 offers a survey of research methods used in L2 Spanish word order research and Section 17.6 presents a quick summary of key findings and directions for future research.

17.2 The NP Domain: The Order of Adjectives

Spanish evaluative adjectives (e.g., *bueno* “good,” *malo* “bad,” *agradable* “pleasant”) can be placed both pre-nominally and post-nominally (1a), though the Adj-N/N-Adj alternation entails different interpretations.¹ Non-evaluative adjectives denoting shape, nationality, color, and size appear only post-nominally (2a). English requires adjectives to appear pre-nominally, irrespective of their semantics (1b), (2b). In French, some evaluative adjectives are grammatical when in pre-nominal position, but others are not (e.g., the French equivalent of (1)). The learning task for the learner of L2 Spanish is (i) to determine which adjectives are allowed pre-nominally and (ii) to accurately map the semantic interpretation associated with each syntactic position.

- (1) a. Una preocupante situación/Una situación preocupante
 b. A worrying situation/*A situation worrying
- (2) a. *Una redonda mesa/Una mesa redonda
 b. A round table/*A table round

Androutsopoulou, Español-Echevarría, and Prévost (2008) tested evaluative and non-evaluative adjectives in L1 French – L2 Spanish advanced and intermediate learners. They tested pre-nominal order only, which says nothing about the different semantic interpretations derived from the pre-/post-nominal alternation. Some of those evaluative adjectives were grammatical in both Spanish and French, others grammatical in Spanish but ungrammatical in French, and a final set (non-evaluative adjectives) were ungrammatical in both languages. Acceptance rates from a 4-point scale grammaticality judgment task (GJT) (see Section 17.5.1) demonstrated that Spanish natives behaved as expected, accepting evaluative adjectives (but rejecting non-evaluative adjectives) in pre-nominal position (Adj-N order). Intermediate and advanced learners showed a similar pattern by significantly preferring evaluative adjectives which are allowed in pre-nominal position in their L1 French to those that were not, which indicates a strong L1 effect. As for non-evaluative adjectives (*Adj-N order), advanced learners performed much like the natives by rejecting them in pre-nominal position, but intermediates showed indeterminacy by selecting mid-values. Learners are thus sensitive to the different types of adjectives (evaluative vs. non-evaluative). The alleged [Degree/Focus] linguistic feature responsible for the displacement of evaluative adjectives to pre-nominal position (under the assumption that they are generated post-nominally) is underspecified in intermediate stages of acquisition, but it gradually becomes specified on evaluative adjectives (becoming first L1-influenced and then native-like).

Rothman *et al.* (2010) went one step further and tested the semantic effects of pre-nominal vs. post-nominal evaluative adjectives in L2 Spanish. In contextual kind/set readings, pre-nominal evaluative adjectives in native Spanish (3a) have a kind-denoting reading (the adjective is interpreted as applying to all possible members of the set referred to by the noun) but post-nominal evaluative adjectives (3b) have a set-denoting reading (the adjective is interpreted as applying to a subset of all members

of the set). Since these interpretations are not obvious from the input, they represent a POS phenomenon. English strict Adj-N order is ambiguous as it encompasses both interpretations. This parametric difference between Spanish and English stems from features associated with the *Noun-raising parameter*.

- (3) a. Los valientes bomberos
 “The brave firefighters” (i.e., *All firefighters are brave*)
 b. Los bomberos valientes
 “*The firefighters brave” (i.e., *Those firefighters who are brave*)

Intermediate and advanced English-speaking learners of L2 Spanish participated in a semantic interpretation task (see Section 17.5.6) and (ii) a context-based collocation task (see Section 17.5.7). The number of correct responses was similar for both tasks. Advanced learners behaved similarly to Spanish natives in both conditions (pre- and post-nominal), but intermediate learners significantly differed from natives and advanced learners and showed a bias for post-nominal position. Findings thus suggest an early dissociation between syntax and semantics: at intermediate levels learners acquire adjective placement (similarly to Androutopoulou *et al.*'s 2008 results) but the corresponding semantic nuances are acquired at advanced levels (a finding that could not be confirmed in Androutopoulou *et al.*'s (2008) study since they only tested Adj-N order). This suggests that structures constrained at the syntax-semantics interface develop gradually and are eventually acquirable, which supports the “weak” version of the *Interface Hypothesis*, which postulates that advanced/near-native L2 learners show deficits when integrating material at the language-external interfaces (e.g., syntax-discourse – see Section 17.5.2 for an illustration) but not at the language-internal interfaces (syntax-semantics) (see Sorace 2011 for an overview).²

17.3 The Sentence Domain: Argument Structure

Spanish “free” SV/VS alternations are highly constrained. Two types of intransitive verbs are widely recognized in the theoretical literature (see Levin and Rappaport Hovav 1995 for an overview): unaccusatives vs. unergatives (Table 17.1). Unergatives like *llorar* “cry” (10a,a’) assign a thematic role of agent to the subject *the boy/el niño*, but unaccusatives like *romperse* “break” assign a theme (patient) to their subject *the window/la ventana* (6a,a’), as can be corroborated in the causative version of the transitive verb *break/romper* (6b,b’), where the object *the window* is a theme. Additionally, the subject is generated pre-verbally with unergatives but post-verbally with unaccusatives. This results in unaccusative VS order in Spanish (4b), which is preferred to SV (4a), as empirical research has shown (see Section 17.3.2). Though SV is the norm (5a), English unaccusatives also allow a post-verbal subject (VS in (5b)) provided an overt expletive *there* is inserted in pre-verbal position.

- (4) a. Dos fantasmas blancos aparecieron / b. Aparecieron dos fantasmas blancos
 (5) a. Two white ghosts appeared / b. There appeared two white ghosts

Table 17.1 Alternating and non-alternating verbs

VERB TYPE	CONFIGURATION		
	<i>Inchoative</i>	<i>Transitive (lexical)</i>	<i>Causative</i>
UNACCUSATIVE (alternating) CHANGE OF STATE: <i>romper/romperse</i> "break," <i>derretir/derretirse</i> "melt". CHANGE OF LOCATION: <i>subir/subirse</i> 'go up', <i>bajar/bajarse</i> 'go down'.	<i>Intransitive</i> (6) a. La ventana se rompió The window CL broke a'. The window broke	<i>Transitive (lexical)</i> b. El ladrón rompió la ventana b'. The thief broke the window	<i>Transitive (periphrastic)</i> c. #El ladrón hizo romper la ventana c'. #The thief made the window break
UNACCUSATIVE (non-alternating) ● Paired (with suppletive counterpart): CHANGE OF STATE/LOCATION (<i>morir/matar</i> "die/kill", <i>caer/tirar</i> "fall/drop").	(7) a. El juguete se calló The toy CL fell a'. The toy fell	b. El niño *cayó/tiró el juguete b'. The boy *fell/dropped the toy	c. El niño hizo caer el juguete c'. The boy made the toy fall
● Unpaired (without suppletive counterpart): EXISTENCE AND APPEARANCE (<i>existir</i> "exist", <i>aparecer</i> "appear"); INHERENTLY DIRECTED MOTION (<i>salir</i> "leave", <i>llegar</i> "arrive").	(8) a. El genio apareció a'. The genie appeared	b. *Aladino apareció al genio b'. *Aladdin appeared the genie	c. Aladino hizo aparecer al genio c'. Aladdin made the genie appear
(9) a. La niña llegó tarde a'. The girl arrived late	b. *El padre llegó a la niña tarde b'. *The father arrived the girl late	c. El padre hizo llegar a la niña tarde c'. The father made the girl arrive late	
UNERGATIVES (non-alternating) <i>reír</i> "laugh", <i>gritar</i> "shout", <i>correr</i> "run".	(10) a. El niño lloró a'. The boy cried	b. *El dentista lloró al niño b'. *The dentist cried the boy	c. El dentista hizo llorar al niño c'. The dentist made the boy cry
TRANSITIVE (non-alternating) <i>cortar</i> "cut", <i>atrapar</i> "catch", <i>escribir</i> "write".	(11) a. *El pollo se cortó The chicken CL cut a'. *The chicken cut	b. El cocinero cortó el pollo b'. The cook cut the chicken	c. #El cocinero hizo cortar el pollo c'. #The cook made the chicken cut

Within unaccusatives, two types are distinguished (Table 17.1), *alternating* vs. *non-alternating*, which will be explained below.

17.3.1 Intransitives and the inchoative/causative alternation

Languages around the world participate in the inchoative/causative alternation ((6a,a')/(6b,b') in Table 17.1), but may vary in their (morpho)syntactic realization. In Spanish and English, change-of-state/location verbs like *romper/romperse* 'break' are *alternating* verbs. The transitive SVO configuration (6b,b') is interpreted causatively, where the subject *el ladrón/the thief* is the agent of *rompió/broke* and the object *la ventana/the window* is the theme. By contrast, the SV intransitive counterpart (6a,a') has an inchoative meaning and the theme *la ventana/the window* (originally an object) surfaces now in subject position. The Spanish detransitivizing clitic (CL) *se* (6a) acts as an anticausative marker since the agent/cause of the action is left unexpressed. English morphologically lacks such a clitic marker. Interestingly, not all intransitives allow this alternation, e.g., non-alternating unaccusatives allow the inchoative configuration but not its lexical causative counterpart, e.g., unaccusatives denoting inherently directed motion, (9a,a') vs. (9b,b'), and existence/appearance, (8a,a') vs. (8b,b'). The same holds for unergatives: (10a,a') vs. (10b,b'). These non-alternating intransitives can convey a causative meaning via a periphrastic SVO transitive configuration, (7c,c'), (8c,c'), (9c,c'), (10c,c'). With transitives, the causative SVO configuration is possible (11b,b'), but not the inchoative SV one (11a,a').³

A series of studies have investigated the inchoative/causative alternation in L2 Spanish, which represents a POS phenomenon since the input does not contain enough overt information to determine which verbs can(not) participate in the alternation. Montrul's (1999) seminal study tested intermediate L1 English/Turkish-L2 Spanish learners. With alternating unaccusatives (6a,b), Turkish and Spanish require overt morphology (*se* in Spanish and *-il* in Turkish), whereas English has zero morphology. Learners have to acquire knowledge about which verbs can (not) alternate and what the clitic entails. Montrul hypothesized that, if L1 is transferred, then the Turkish group would be closer to Spanish natives than the English group; by contrast, if UG is accessed, then both groups should behave like English-speaking children, who accept causative errors with non-alternating unaccusatives, e.g., (8b), (9b) (with an intended causative meaning). In a Picture Judgment Task (PJT) (see Section 17.5.3), learners judged on a negative-positive Likert scale pairs of sentences representing the inchoative/causative alternation. Overall, intermediate learners know that alternating verbs enter the inchoative/causative alternation, but non-alternating verbs do not. But learners' knowledge differs from that of natives in some ways. In particular, the Turkish group knows that alternating unaccusative verbs alternate in transitivity by accepting both alternants (6a,b), as Spanish natives do. The English group correctly accepted the transitive alternant (6b) but reluctantly accepted the intransitive alternant (6a), probably due to the presence of the anticausative clitic *se*, a reflection of L1 transfer rather than lack of syntactic knowledge of the alternation (see Cabrera 2010 below). Regarding the ungrammatical causative configuration with non-alternating intransitives (i.e., paired unaccusatives (7b), unpaired unaccusatives (8b) and (9b), and

unergatives (10b)), natives clearly reject them but learners' rejection is mild as they hover around the mid-value (0), which means that they incorrectly overgeneralize the causative configuration to non-alternating verbs. Overgeneralization appears in both groups, so it cannot be a result of Full Transfer, as proposed by Schwartz and Sprouse's (1996) *Full Transfer/Full Access Hypothesis*, which argues that the initial state of SLA is the L1. Instead Montrul (1999) claims that L2 learners have Full Access to UG as they incorrectly map non-alternating intransitives onto a transitive (causative) template, as in L1 English acquisition. Transfer is modular since L1 effects are more observable in morphology than in argument structure. In two follow-up studies with additional L1–L2 configurations, Montrul (2000, 2001a) confirmed that L1 influence is observable in morphology, while the syntactic alternation is similar for all groups independently of their L1.

Cabrera and Zubizarreta (2003) addressed Montrul's (1999) shortcoming relating to intermediate learners and to language comprehension only. They investigated at which developmental point (beginner, intermediate, or advanced) learners become sensitive to verb class (unaccusative/unergative) in the inchoative/causative alternation. They hypothesized, contra Montrul (1999), that learners would *selectively* overgeneralize the causative construction to non-alternating unaccusatives, (7b)–(9b), but not to unergatives (10b), since verbs entering the alternation have unaccusative-like properties and learners are sensitive to this. They administered a PJT, based on Montrul's (1999) design, plus a Written Production Task, where participants were asked to write two sentences describing a picture by using alternating and non-alternating verbs such as those shown in Table 17.1. Regarding periphrastic causatives (the (c) examples in Table 17.1), all groups correctly accepted them with non-alternating unaccusatives (7c)–(9c) and with unergatives (10c). Like natives, all proficiency groups were accurate at (i) accepting/producing verbs in their correct intransitive configuration: alternating unaccusatives (6a), non-alternating unaccusatives (7a)–(9a), and unergatives (10a); and (ii) correctly disfavoring transitives in an ungrammatical intransitive configuration (11a). Beginners and intermediates overgeneralized by incorrectly accepting the transitive configuration with non-alternating intransitives (7b)–(9b), which confirms Montrul's (1999) findings, but Cabrera and Zubizarreta crucially found that learners overgeneralized more with non-alternating unaccusatives (7b)–(9b) than with unergatives (10b), though overgeneralizations disappear in advanced levels. Learners are thus sensitive to the lexico-semantic properties of verb class (unaccusative vs. unergative), contra Montrul (1999). Interestingly, a follow-up case analysis performed in the beginner and intermediate groups revealed two types of learners: (i) "conservative" learners who did not overgeneralize, and (ii) "creative" learners who overgeneralized. Most of the creative learners used a lexico-syntactic strategy by overgeneralizing with unaccusatives only and never with unergatives, but others used a purely syntactic strategy and overgeneralized with both, thus supporting the *Unaccusative Trap* (Oshita 2001), which postulates that at early stages learners syntactically treat all intransitives as unergatives. The authors conclude, contra Montrul's (1999) default transitive template proposal, that causative overgeneralizations with non-alternating intransitives, (7b)–(9b) and (10b), is not due to lack of grammatical knowledge because most creative learners favor overgeneralization with non-alternating unaccusatives.

The idea that transfer *selectively* occurs at different stages of L2 development is known as “developmentally moderated transfer” (DMT). Cabrera (2010) explored DMT with inchoative structures with(out) *se* in L1 English – L2 Spanish at three developmental stages (beginner, intermediate, advanced). Recall that Spanish inchoative structures require the anticausative clitic *se* (6a) whereas the English equivalent requires zero morphology (6a’). Learners were presented with a modified version of Montrul’s (1999) PJT containing a picture followed by a single sentence and a negative-positive rating scale, but Cabrera (2010) asked them to provide a correction in case the sentence was rated negatively. Similarly to Spanish natives, learners at all stages prefer inchoative structures with alternating unaccusatives (6a) to non-alternating transitives (11a), though differences are significant only for advanced learners. Corrections to grammatical stimuli (6a) reveal that beginners and intermediates correct them by erasing *se* (**La ventana rompió*), in line with previous research (Zyzik 2006), but that advanced learners corrected them by producing an impersonal agentive transitive structure (*Alguien rompió la ventana* “Somebody broke the window”). By contrast, the preferred correction to incorrect intransitive-inchoative structures with non-alternating transitives (11a) was an impersonal transitive sentence (*Alguien cortó la carne* “Somebody cut the meat”) at all proficiency levels, as also reported by Toth (2000). Cabrera (2010) proposes two stages in the L2 acquisition of the inchoative/transitive alternation: (i) morphological transfer stage (absence of *se* as a result of L1 English zero anticausative morphology); and (ii) lexico-syntactic stage (preference for alternating *romper(se)* to non-alternating *cortar(*se)* verbs regardless of the presence of *se*). Cabrera (2010) settles the dispute on L1 transfer in the inchoative/causative alternation by arguing that transfer is not modular (contra Montrul) but rather developmental: “Transfer of morphology is more evident in early acquisition, whereas lexico-syntactic transfer, or sensitivity to different verb classes, is more noticeable later on.” (169)

The investigation of the inchoative/causative alternation in L2 Spanish was further extended to agentive verbs of manner of motion (e.g., *marchar* “march,” *desfilear* “parade”). Montrul (2001b) found that the L1 is the source of the intermediate learners’ causative over/undergeneralizations with such verbs, but Cabrera and Zubizarreta (2005) found that different overgeneralization types operate at different stages, which supports DMT. The reader is referred to these studies for further details.

17.3.2 Subject-Verb inversion: SV/VS alternations

Intransitive SV/VS word orders (Table 17.2) appear to alternate freely in Spanish. In discourse, a global question like *What happened?* triggers a neutral response where the whole sentence is new information (focus). The pragmatically appropriate order is SV with unergatives (12a) but VS with unaccusatives (14b). This is a lexicon-syntax interface constraint. But a focused subject (e.g., as an answer to *Who shouted/arrived?*) appears in sentence-final position irrespective of verb type since discourse-new constituents in Spanish are sentence final, as in (13b) and (15b). This is a syntax-discourse interface constraint.

Hertel (2003) tested at what stage learners start discriminating between unaccusative vs. unergative VS order when constrained lexically vs. discursively in L1 English – L2

Table 17.2 Word order alternations with intransitive verbs

	<i>Global question</i> (What happened last night at the party?)	<i>Focused-subject question</i> (Who shouted/arrived last night?)
<i>Unergatives</i>	SV: (12) a. Una mujer gritó b. #Gritó una mujer	VS: (13) a. #Una mujer gritó b. Gritó una mujer
<i>Unaccusatives</i>	VS: (14) a. #La policía llegó b. Llegó la policía	VS: (15) a. #La policía llegó b. Llegó la policía

Spanish (beginners, low intermediate, high intermediate, advanced). In a Contextualized Production Task (see Section 17.5.2), learners were shown a context followed by a global or focused-subject question and had to produce SV or VS accordingly. While Hertel presents results by context (global/focused subject), they are more revealing if analyzed by verb type instead, as done in Figure 17.1(A and B). Regarding unaccusatives (Figure 17.1A), natives produce equally high numbers of VS in both global-question and focused-subject contexts, as expected. At lower levels, VS is hardly produced in either context (ranging from beginners' zero production to high intermediates' 10%), which suggests that these learners produce SV, as in their L1. Advanced learners overproduce VS. As for unergatives (Figure 17.1B), natives behave as expected by clearly discriminating between context types: VS is hardly produced with global questions (7%) but is highly produced in focused-subject questions (33%). Beginners and lower intermediates do not produce any VS with unergatives, high intermediates correctly (though mildly) produce more VS in focused questions than in global questions (13% and 1%, respectively). Advanced learners overproduce VS in both contexts, which indicates that they overgeneralize VS again. Hertel (2003) concludes that beginning and intermediate learners are not sensitive to the lexicon-syntax constraints on word order, since learners transfer the SV of their L1, consistent with the *Unaccusative Trap*, as also reported by Cabrera and Zubizarreta (2003; see Section 17.3.1) and in a developmental study of L1 English – L2 Spanish by Montrul (2005). Additionally, Hertel's advanced learners' acquisition of VS is, on closer inspection, a reflection of overgeneralizing VS.

Lozano (2006a) focused precisely on highly advanced learners of Spanish. The learners' L1s (English/Greek) allowed the author to investigate L1 vs. developmental/universal influence on acquisition at the interfaces. At the lexicon-syntax interface (global contexts), Greek behaves like Spanish (SV with unergatives but VS with unaccusatives), whereas at the syntax-discourse interface (focused-subject questions) Greek requires SV order with both verb types but Spanish requires VS. Lozano predicted that when word order is constrained by UG (lexicon-syntax interface), advanced learners would acquire the unaccusative/unergative distinction, whereas when it is constrained by information structure (syntax-discourse interface), learners would show deficits. A Contextualized Acceptability Judgment Task (see Section 17.5.2) was administered, where both SV and

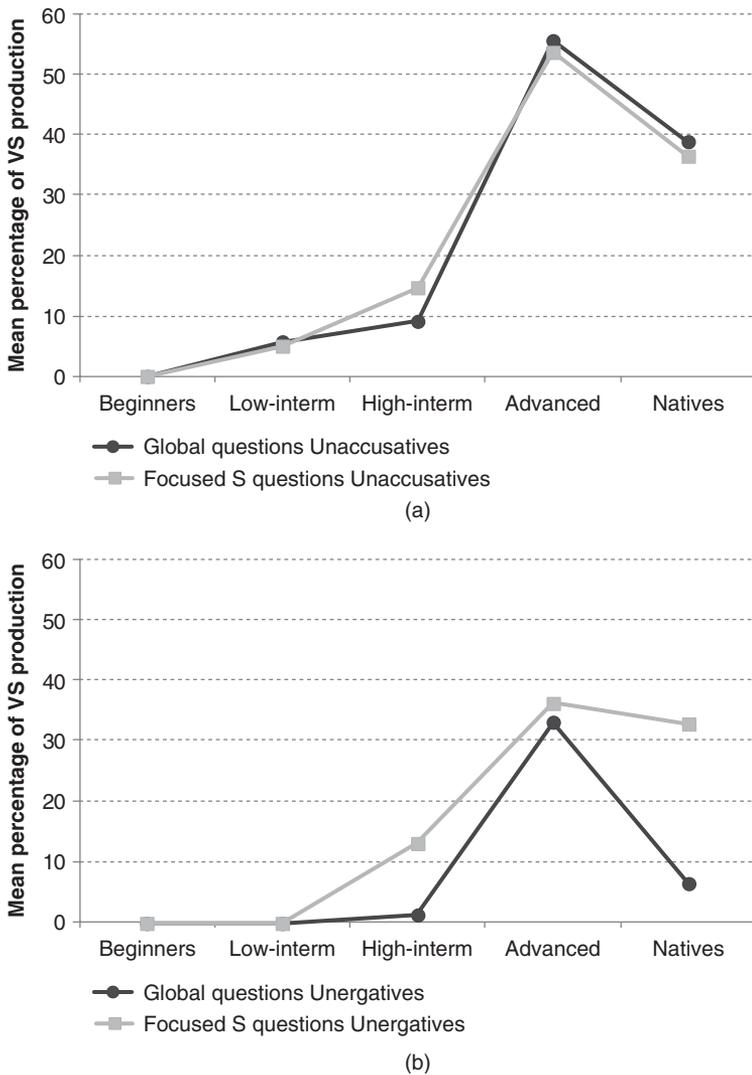


Figure 17.1 Production of Verb-Subject order (adapted from Hertel 2003: tables 3 and 4).

VS had to be rated (though only one order was pragmatically felicitous depending on the preceding global/focus-subject question). Results (Table 17.3) showed that in global contexts, both groups of learners significantly preferred VS to SV with unaccusatives but SV to VS with unergatives, as natives do, thus confirming native-like knowledge at the syntax-discourse interface, irrespective of their L1. However, in focused-subject contexts, learners' behavior is rather optional. With both unergatives and unaccusatives, natives clearly and significantly prefer VS to SV, as expected, but the SV/V S distinction is not statistically significant for either group of learners (results shown in the gray

Table 17.3 Acceptance of SV/VS orders (adapted from Lozano 2006a, Figures 1–4)

<i>Context</i>	<i>Group</i>	<i>Unergatives</i>	<i>Unaccusatives</i>
Global questions	L1 English	SV > VS	SV < VS
	L1 Greek	SV > VS	SV < VS
	Spanish natives	SV > VS	SV < VS
Focus-subject questions	L1 English	SV ≈ VS	SV ≈ VS
	L1 Greek	SV ≈ VS	SV ≈ VS
	Spanish natives	SV < VS	SV < VS

Note to symbols: “>” significantly larger than; “<” significantly smaller than; “≈” not significantly different from.

shaded area). This implies that when word order is constrained at the syntax-discourse interface, learners show deficits by simultaneously accepting both word orders, which results in optionality. Taken together, Lozano’s (2006a) results confirm the recent versions of the *Interface Hypothesis* (Sorace 2011), though he claimed that deficits are syntactic in nature as a result of learners’ inability to encode focus syntactically, and not due to lack of knowledge of information structure (topic/focus).

Lozano (2006b) used the same methodology and tested the same constructions as in 2006a, but focused on the development of the lexicon-syntax and syntax-discourse interface with SV/VS alternations in three groups of Greek learners of Spanish (upper intermediate, lower advanced, upper advanced). Results from global contexts show that learners significantly preferred VS to SV with unaccusatives (Figure 17.2A), but SV to VS with unergatives (Figure 17.2B), as natives did. In focused-subject contexts with unaccusatives (Figure 17.2C) there is gradual development: upper intermediates equally accepted both SV and VS, lower advanced learners preferred (correctly but not significantly) VS to SV, the advanced group shows a tendency toward the natives by preferring VS to SV (the difference being just about significant), while the natives clearly accept VS and reject SV. With focused-subject unergatives (Figure 17.2D) the results are more clear cut: natives behave as expected by significantly preferring VS to SV, but learners incorrectly and highly prefer both SV and VS at all levels (the difference not being significant, though a mild preference for SV to VS is observed). Lozano (2006b) concludes that “Greek learners of Spanish show deficits with word order distribution at the syntax-discourse interface, while their intuitions converge with natives’ when word order is constrained by universal properties at the lexicon-syntax interface” (399), thus confirming previous research. But this finding runs against the *Unaccusative Trap* (see Cabrera and Zubizarreta 2003; Hertel 2003), since learners are sensitive to the unergative/unaccusative word order distinction at the lexicon-syntax interface, perhaps due to influence from their L1 (Greek).

Future research will need to (i) determine whether the *Unaccusative Trap* is developmentally observable irrespective of the learners’ L1, and (ii) discover whether there are additional factors (e.g., prosodic) involved in the SV/VS alternation, as suggested by Zubizarreta and Nava (2011) for L2 English.

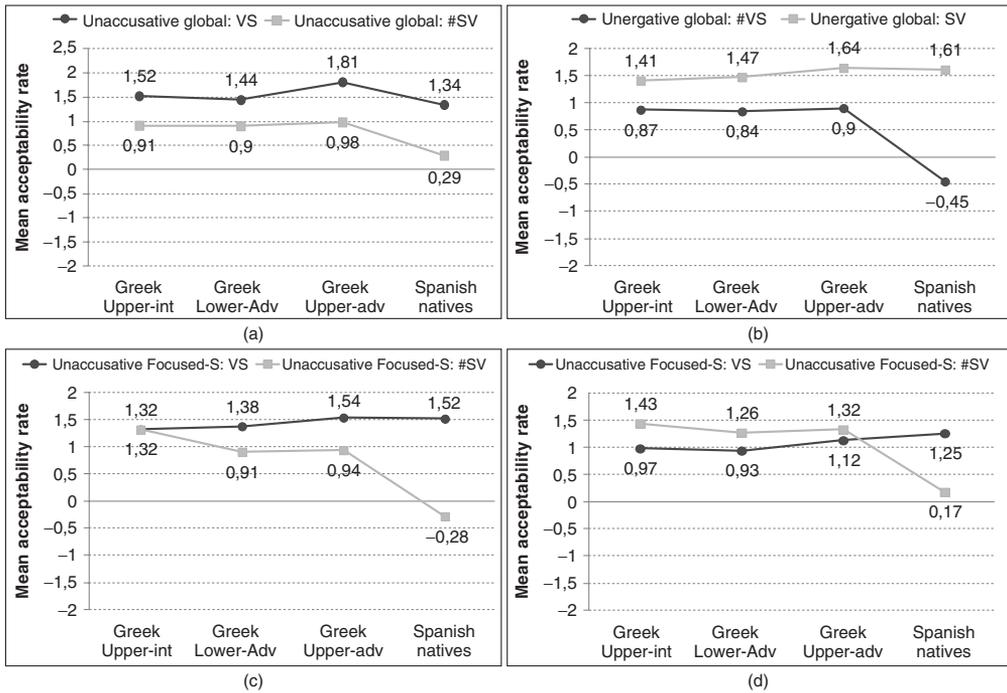


Figure 17.2 Acceptance of SV/VS in global contexts (adapted from Lozano 2006b: figures 1, 2, 3, 4).

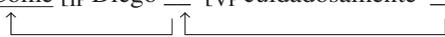
17.4 Beyond the Sentence: The Left Periphery and the CP Domain

In this section we will explore studies that have tested the acquisition of the Complementizer Phrase (CP) domain, that is, the syntactic layer in the left periphery of the sentence.

17.4.1 *Interrogative sentences*

The acquisition of interrogatives has been traditionally studied in the context of the V(erb)-raising parameter and its clustered syntactic properties: adverb placement (Adv-V/V-Adv alternations) in statements and Subject-Verb inversion in interrogatives. Spanish and English differ in relation to the syntactic effects of V-raising. Spanish is a [+raising] language since lexical verbs raise from within the Verb Phrase (VP) to the so-called Inflectional Phrase (IP), which is basically the highest syntactic layer that corresponds to the sentence. The resulting word order is SVAO (and not *SAVO) (16a), particularly with manner adverbs ending in *-mente* (“-ly”). Additionally, the verb is also required to raise to the left periphery of the sentence, namely, to the so-called Complementizer Phrase (CP) layer, which is the landing site for displaced verbs and *wh*-constituents in interrogative sentences (16b). By contrast, English is a [-raising] language since lexical verbs cannot raise past the adverb (17a). The resulting word order is SAVO (and not *SVAO). Additionally, verbs cannot raise past the subject but instead an auxiliary (*do*) is needed, which entails that SV inversion is not possible in interrogative sentences with lexical verbs (17b).

- (16) a. [IP Diego come [VP cuidadosamente ___ pasta]]

- b. [CP Come [IP Diego ___ [VP cuidadosamente ___ pasta]]] ?

- (17) a. [IP Diego ___ [VP carefully eats pasta]]

- b. [CP (does) [IP Diego ___ [VP carefully eats pasta]]] ?


Mandell (1998) was the first to investigate the development of the syntactic properties of the V-raising parameter in L1 English – L2 Spanish (beginner, intermediate, advanced). He tested whether learners would be able to move from the English [-raising] setting to the Spanish [+raising] setting. Results from a GJT (see Section

17.5.1) and a Dehydrated Sentence Task (see Section 17.5.5) revealed that learners reset the parameter in a gradual, step-wise fashion: learners acquire first obligatory SV inversion with fronted *wh-* phrases (1st stage) and later with *yes/no* questions (2nd stage), though V-raising in this second stage may be optional. Learners later place the adverb between the verb and the object (3rd stage). Mandell's findings indicate that the two clusters of the V-raising parameter are acquired sequentially in two stages: V-to-C is acquired before V-to-I.

Guijarro-Fuentes and Larrañaga (2011) also tested the development of the V-raising parameter in L1 English – L2 Spanish (beginners, lower intermediate, intermediate, and advanced learners who started learning Spanish after puberty). Both a GJT and a Paired GJT (Section 17.5.1) were used, as well as a Production/Translation Task, where learners translated Spanish sentences into English to test for SV agreement errors. Overall, learners were eventually able to reset the V-raising parameter by correctly allowing the SVAO order and inversion in both *wh-* and *yes/no* questions. What is difficult to acquire is SV agreement morphology (person and number), which suggests a dissociation between syntax and morphology at early levels (beginners and lower intermediates).⁴ This finding supports theories claiming that learners' lack of production of morphology does not necessarily entail lack of the related syntactic features (Lardiere 2000), but runs against the *Representational Deficits Account*, which postulates that learners are unable to reset parameters in an L2 after puberty unless they are instantiated in their L1 (Hawkins and Hattori 2006). In short, syntax and morphology develop independently.

Interrogative sentences have been studied on their own (i.e., not as part of the V-raising parameter). Montrul, Foote, and Perpiñán (2008) tested *wh-* movement in L1 English – L2 Spanish learners ("late" bilinguals) and Spanish/English heritage speakers ("early" bilinguals) at three proficiency levels (low, intermediate, and advanced). In matrix (i.e., main) clauses the object can be extracted and fronted in both languages, but Spanish requires SV inversion (18a) and English needs *do* insertion (19a). In embedded (i.e., subordinate) clauses, both object (18b) and subject (18c) extraction are possible in Spanish and English, though in English the complementizer *that* is optional with object extraction (19b), but compulsory with subject extraction (19c), a fact known as the *that*-trace filter. Importantly, object extraction from an adjunct is ungrammatical in both languages, (18d) and (19d).

- (18) a. Juan vio a Shakira → a'. ¿A quién vio Juan? / a''. *¿A quién Juan vio?
 b. Juan dice [que María vio a Shakira] → b'. ¿A quién dice Juan [que vio María]?
 c. Juan dice [que María vio a Shakira] → c'. ¿Quién dice Juan [que vio a Shakira]?
 d. Juan habló con María [después de ver a Shakira] → d'. *¿A quién habló Juan con María [después de ver]?
- (19) a. Juan saw Shakira → a'. *Who(m) saw Juan? / a''. ¿Who(m) did Juan see?
 b. Juan says [that Maria saw Shakira] → b'. Who(m) does Juan say [(that) Maria saw]?
 c. Juan says [that Maria saw Shakira] → c'. Who does Juan say [*(that) saw Shakira]?
 d. Juan talked to Maria [after seeing Shakira] → d'. *Who(m) did Juan talk to Maria [after seeing]?

Table 17.4 Mean acceptability rates of *wh*- extraction (adapted from Figures 3, 4, 5, 7 and 8 in Montrul *et al.* 2008)

<i>Extraction site</i>	<i>Extracted constituent</i>	<i>Inversion type</i>	<i>Beginner</i>	<i>Interm.</i>	<i>Advan.</i>	<i>Natives</i>
Matrix	Object	Inversion (18a')	4.17	4.75	4.63	4.89
	Object	*No inversion (18a'')	2.02	1.50	1.20	1.35
Embedded	Object	Inversion (18b')	3.25	3.45	2.94	4.51
	Subject	Inversion (18c')	2.43	2.31	2.08	4.08
Adjunct	Object	*Inversion (18d')	2.40	2.03	1.21	1.11

The L2 learners (i.e., “late bilinguals”) judged interrogatives with(out) inversion via a 5-point GJT. Findings (Table 17.5) suggest that they know the constraints on *wh*-movement in Spanish from early stages, as they clearly prefer inversion (18a') to non-inversion (18a''), though this knowledge is not native-like with embedded extraction, where there is an asymmetry: natives and learners rate object extraction (18b') more favorably than subject extraction (18c') (a finding widely reported in the L2 literature), though learners' rates are considerably lower than those of natives. Extraction from matrix clauses is acquirable but extraction from embedded clauses is problematic, probably due to processing limitations (and not to lack of syntactic knowledge). Finally, learners correctly give low ratings to the ungrammatical extraction from an adjunct (18d'), though they approach native-like levels only at advanced stages. In conclusion, an early onset in L2 Spanish does not confer an added advantage, since L2 learners and heritage speakers (not reported here) behaved similarly.

17.4.2 *Topic: Clitic Left Dislocation (CLLD)*

Apart from *wh*- phrases, Spanish constituents can be dislocated from their canonical position (e.g., object position of *el libro*) (20a) to the left periphery of the sentence (20b), provided that there is a pronominal clitic (*lo* “it”) that is coreferential with the dislocated constituent. The displaced constituent is informationally interpreted as a topic, i.e., discourse-old information elicited by questions like *What did Juan do with the book?* This syntax-discourse structure is known as *Clitic Left Dislocation (CLLD)*, where the dislocated topic is displaced to the CP layer (20c). English has a similar structure (known as *Contrastive Left Dislocation (CLD)* or *Topicalization*), though it does not require an overt clitic (21).

- (20) a. Juan leyó el libro anoche.
 Juan read the book last night
 b. El libro, lo leyó Juan anoche.
 The book, it read John last night
 c. [_{CP} El libro_i, [_{IP} lo_i leyó Juan anoche]

- (21) a. Water, I drink every day.
 b. The book, John read last night.

In Spanish, topics are specific (*el libro* ‘‘the book’’) (22a). A non-specific element would represent new (focus) information (*un libro* ‘‘a book’’ or *libros* ‘‘books’’) and cannot appear in the CLLD configuration (22b,c), though a null clitic (22b’,c’) is grammatically licit but entails a different pragmatic meaning (contrastive focus, see Section 17.4.3). The specific/non-specific distinction does not hold in English as it does not have clitics.

- (22) a. El libro, lo leyó Juan anoche / a’. *El libro, leyó Juan anoche [+specific]
 b. *Un libro, lo leyó Juan anoche / b’. Un libro, leyó Juan anoche [-specific]
 c. *Libros, los leyó Juan anoche / c’. Libros, leyó Juan anoche [-specific]

Spanish topics can be recursive, since multiple left-dislocated elements are possible in CLLD (23a), unlike English CLD (23b).

- (23) a. El libro, a Sole, se lo presté.
 The book, to Sole, her it I-lent
 b. *The book, to Sole, I lent.

Spanish CLLD and English CLD appear in the left periphery of matrix clauses, but only Spanish CLLD is allowed in embedded clauses: (24a) vs. (24b).

- (24) a. Carmen me preguntó [que, el libro, quién lo leyó]
 Carmen me asked [that, the book, who it read]
 ‘‘Carmen asked me who read the book’’
 b. *Carmen asked me, [the book, who read]

The learning task for the learner of L2 Spanish relates to these differences (Table 17.5).

Valenzuela (2008) investigated these CLLD structures in a group of highly proficient English near-native learners of Spanish to determine whether native-like attainment with CLLD is possible in end-state grammars. She employed a controlled production task like the SCT (Section 17.5.8) and an Oral GJT (Section 17.5.1). In the SCT, natives (100%) and near-natives (93% and 96%) behaved similarly by producing an overt clitic in the recursive (23a) and the specific (22a) conditions. In the non-specific condition (22b’,c’), natives produced no clitics, as expected, but the near-natives’ incorrect production

Table 17.5 Summary of left dislocated constituents: Spanish CLLD vs. English CLD

	<i>Spanish CLLD</i>	<i>English CLD</i>
Clitic	overt	null
Definiteness effects	yes	no
Recursive	yes	no
Syntactic context	matrix and embedded	matrix only

of clitics (31%) (22b,c) implies overgeneralization of the Romance CLLD structure to non-specific contexts, which is pragmatically anomalous. Results from the GJT confirm the production results. Valenzuela concludes that learners can acquire the CLLD syntax but not the specificity distinction (interpretation), suggesting that left-peripheral syntax-discourse interface features not instantiated in the L1 are acquirable in post-childhood L2 acquisition, contra the *Representational Deficits Hypothesis*.

In a related study, Valenzuela (2006) used three tasks (two oral and one written) to test this time whether near-natives could acquire both the syntactic *and* interpretive properties associated with CLLD. Production and comprehension results confirmed that (i) acquisition of the syntactic properties of CLLD are acquirable in both root (20b) and embedded (24a) contexts, and (ii) there is a pragmatically incorrect overgeneralization of an overt clitic in non-specific CLLD structures (22b,c). Valenzuela's findings suggest a dissociation between syntax (acquirable) and semantic specificity interpretation (not acquirable). Near-native grammars are native-like in terms of syntax but "incomplete" at the syntax-discourse interface, a finding consistent with the *Interface Hypothesis*.

17.4.3 *Contrastive Focus: Focus Fronting (FF)*

Slabakova, Kempchinsky, and Rothman (2012) investigated two left-peripheral syntax-discourse interface structures: CLLD (20b) and FF (25B). In FF the displaced constituent bears emphatic stress (indicated by capital letters) and is interpreted contrastively. Unlike CLLD, Spanish FF does not require an overt clitic correlative with the dislocated element. English also allows a structure similar to Spanish FF (26B).

(25) A: What did John read, the book or the articles?

B: EL LIBRO leyó Juan (no los artículos)

THE BOOK read John (not the articles)

"It is the book that John read (not the articles)."

(26) A: How did they name their baby girl?

B: SARAH they named their girl (not Sue)

The learning task for English learners of L2 Spanish is twofold, as they have to acquire (i) the syntactic configuration of CLLD vs. FF; and (ii) their discourse appropriateness. They predicted that syntactic properties are acquired before interface properties (as confirmed by previous research in the previous section). A preliminary test showed that all groups (intermediate, advanced, and near-native learners) were sensitive to Spanish syntax (overt clitic in CLLD but cliticless FF). The interpretive properties were tested in the main experimental task, a Felicity Judgment Task (see Section 17.5.2). Results are shown in Table 17.6. In the CLLD condition intermediate learners simultaneously accept both correct clitic and incorrect cliticless structures but they start significantly preferring the correct overt clitic to the incorrect null clitic from advanced levels. In the FF condition learners start preferring the grammatical null clitic configuration to the ungrammatical overt clitic from intermediate stages. Overall, findings show successful acquisition of CLLD by advanced and near-native learners, which supports Valenzuela's (2006, 2008) findings above. FF did not present many difficulties, probably because this structure

Table 17.6 Acceptability of clitic and cliticless CLLD and FF (Slabakova *et al.* 2012: Figures 3 and 4, plus data provided by the authors)

Group	CLLD <i>clitic – *cliticless</i>	FF <i>*clitic – cliticless</i>
Intermediate	2.8 = 2.8	3.2 > 2.3
Advanced	3.4 > 2.7	3.3 ≈ 2.8
Near-natives	3.5 > 2.3	3.3 > 2.3
Spanish natives	3.5 > 2.0	3.1 > 1.9

Note to symbols: “>” significantly larger than; “<” significantly smaller than; “≈” not significantly different from.

is similar in English and Spanish. The authors argue that the *Interface Hypothesis* is confirmed.

17.5 How Word Order Has Been Investigated in L2 Spanish: Research Methods

L2 research has traditionally favored (quasi)experimental methods (Sections 17.5.1 to 17.5.8) to naturalistic methods (Section 17.5.9), though current proposals argue for triangulation (Mendikoetxea and Lozano Submitted).

17.5.1 Grammaticality and Acceptability Judgment Tasks (GJT and AJT)

In a classic GJT learners judge whether a given sentence (27a) is (un)grammatical (27b). In the AJT learners judge the *gradience* of (un)acceptability of the sentence on a Likert scale, either positive (27c) or negative-positive (27d).

- (27) a. * ¿Qué Juan come?
 b. Correct / Incorrect / Don't know
 c. ① 2 3 4 5
 d. ② -1 0 +1 +2

Other versions of the GJT include the *Preference Grammaticality Judgment Task* (PGJT), also known as *Paired Grammaticality Judgment Task*, with a preference among a pair of sentences (Guijarro-Fuentes and Larrañaga 2011): grammatical (28a) and ungrammatical (28b).

- (28) a. ¿Qué come Sole? ✓
 b. ¿Qué Sole come?

17.5.2 Contextualized Acceptability Judgment Task (CAJT)

The CAJT, also known as *Felicity Judgment Task* (FJT), is useful to investigate word order when constrained by the preceding discourse. Sentences have to be rated according to the preceding context (29) (Lozano 2006a). If intonation plays a role, the target stimuli can be presented both in writing and aurally. Learners can then click on a play “▶” button to listen to each target stimulus (Slabakova *et al.* 2012). If the researcher is interested in production, learners can provide an oral/written answer to the question in a *Contextualized Production Task* (CPT) (Hertel 2000).

(29) Tú estás en una fiesta con tu amiga Laura. Laura sale de la habitación y en ese momento llega la policía porque hay mucho ruido en la fiesta. Cuando Laura vuelve, te pregunta: “¿Quién llegó?” Tú contestas:

- a. La policía llegó. -2 -1 0 +1 +2
 b. Llegó la policía. -2 -1 0 +1 +2

17.5.3 Picture Judgment Task (PJT)

In the PJT learners are typically shown a picture (which acts as a context) followed by one (or two) target sentences that have to be judged on a scale. Learners can be asked to provide a correction in case they rate a sentence negatively (Cabrera 2010).



El ladrón rompió la ventana. 'The thief broke the window.'	-3	-2	-1	0	1	2	3
El ladrón hizo romper la ventana. 'The thief made the window break.'	-3	-2	-1	0	1	2	3

Figure 17.3 Picture Judgment Task (Montrul 1999, 207).

17.5.4 Sentence Selection Task (SST)

A variation of the PGJT and the CAJT is the SST, where learners are shown a short context followed by two sentences with four possible options (Valenzuela 2006).

- (30) Ayer por la mañana, Eva se fue a la universidad y vio a su amigo Pedro y a su amiga Inés, pero como tenía muchas cosas que hacer . . .
- A Pedro, no lo saludó
 - A Pedro, no saludó

Choose: only a is correct / only b is correct / neither a nor b / both a and b

17.5.5 Dehydrated Sentence Task (DST)

A DST (Mandell 1998) provides a good tool to measure the different word order permutations. Constituents are separated by slashes. The learner's task is to combine them to construct an acceptable sentence.

- (31) Hector / regularmente / correr / tres millas
Expected answer: Hector corre regularmente tres millas

17.5.6 Semantic Interpretation Task (SIT)

When each word order alternation entails a different semantic interpretation (as with Adj-N/N-Adj alternations), the SIT is ideal (33) (Rothman *et al.* 2010).

- (32) Los valientes incas resistieron a los conquistadores
- Only the brave Incas (i.e., not the cowardly ones) resisted the conquerors;
 - The Incas, who are all brave, resisted the conquerors.✓

17.5.7 Context-Based Collocation Task (CBCT)

The CBCT (34) can also measure semantic interpretations. Learners are shown a short context followed by a target sentence, where they have to place the given adjective (*valientes* "brave") in either pre- or post-nominal position (Rothman *et al.* 2010).

- (33) No hay super-héroe que no sea conocido por su coraje y fuerza. Es decir, ser super-héroe es tener mucho poder. Los _____ super-héroes _____ nunca tienen miedo de nada. (**valientes**)

17.5.8 Sentence Completion Task (SCT)

In the SCT learners are shown an illustrated story (35) consisting of a dialogue with a question setting the context and an answer containing the target stimulus (an incomplete sentence) (Valenzuela 2008). Learners complete the rest of the target sentence. This

method is recommended when learners are expected to produce a certain sentential constituent (in this case, a full clitic: *Sí, a Juan lo invitaron*).

- (34) Pedro: “¿Invitaron a Juan?”
 María: “Sí, a Juan _____”



Figure 17.4 Sentence Completion Task (Valenzuela 2008, 559).

17.5.9 *Naturalistic methods: learner corpora*

Research on L2 Spanish word order has employed (quasi)experimental methods. There are hardly any studies on L2 syntax that have used corpora, though other linguistic properties have started to be investigated with corpora such as SPLLOC (Mitchell *et al.* 2008) and CEDEL2 (Lozano and Mendikoetxea 2013). Large-scale learner corpora are needed to (dis)confirm new and previous hypotheses by triangulating naturalistic data with existing (quasi)experimental data.

17.5.10 *The IRIS database for SLA research*

L2 findings are amenable to replication (Porte 2012), but little replication has been conducted in SLA. The IRIS database fills this void (<http://www.iris-database.org/>). IRIS is a collection of freely available, previously published instruments used to elicit data for research into SLA.

17.6 Conclusion

17.6.1 *Summary of key findings*

The following summary provides a general overview of Spanish interlanguage word order.

Adjective order: Learners are initially influenced by their L1 order, but later acquire the relevant distinction between adjectives that are not allowed pre-nominally (2a) and

those that are (1a). The subtle semantic interpretation associated with each allowed alternation (3a,b) is acquired only at advanced stages.

Inchoative/causative alternations: Learners know that alternating unaccusatives can be used causatively (6b) but overgeneralize causativity to non-alternating unaccusatives (7b)–(9b) and to unergatives (10b). Overgeneralizations disappear as proficiency increases. If their L1 lacks overt anticausative morphology, learners prefer transitive causative structures (*Alguien rompió la ventana*) and avoid producing anticausative *se* with alternating unaccusatives (6a) until advanced stages.

SV/VS alternations: In early stages, learners prefer SV order irrespective of verb type if this is the case in their L1. Later, they overgeneralize VS to both verb types. Advanced learners correctly prefer SV with unergatives (12a) but VS with unaccusatives (14b), as natives do, showing native-like preferences at the lexicon-syntax interface. However, at the syntax-discourse interface, learners show less clear-cut intuitions at all levels of development and accept both word orders simultaneously (SV/VS).

Interrogative sentences: Obligatory SV inversion is acquired first with *wh*- questions (18a') at around intermediate stages and later with *yes/no* questions (16b). Extraction of *wh*- words from main clauses (18a') is less difficult than extraction from embedded clauses, where object extraction (18b') is less problematic than subject extraction (18c'). Learners' rejection of extraction from an adjunct increases with proficiency (18d').

Left periphery: The syntax of Topic CLLD (20b) is eventually acquirable in near-native stages, though its incorrect generalization to non-definite contexts (22b) indicates persistent semantic deficits. Contrastive focus FF structures (25B) appear not to be problematic.

17.6.2 Directions for future research

Research on L2 Spanish word order acquisition is still in its infancy. Current research addresses theoretical issues (e.g., the role of interfaces, ultimate attainment, the source of deficits (whether representational or computational in nature), etc.), but unlike research on L2 English word order, little is known about L2 Spanish core syntactic phenomena like passivization, relativization, subordination, or clefting. L2 Spanish research needs a wider and more solid empirical base: rigorous research methods, both experimental and corpus data from a wide array of constructions, and evidence from different L1s (if we want to discriminate between likely L1 effects vs. L2 input effects vs. universal/developmental patterns) and from different populations of learners (early bilinguals vs. late bilinguals vs. heritage speakers). It is only once we have more evidence that we will start to have a better understanding of word order phenomena in L2 Spanish and the theories that can account for them.

NOTES

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- 1 Adjective placement is a complex phenomenon since a change in placement does not necessarily entail a differential interpretation for all types of adjectives. See the studies in Section 17.2 for details.

- 2 Note, however, that current research has shown that not all interfaced constructions are necessarily problematic (White 2011).
- 3 Periphrastic causatives like alternating unaccusatives (6c) and non-alternating transitives (11c) are structurally and grammatically possible, but are semantically odd if interpreted mono-agentively (as in (6b) and (11b)) because, when a lexical transitive alternant exists, (6b) and (11b), the periphrastic configuration is to be interpreted bi-agentively, i.e., as *The thief made someone break the window* and *The cook made somebody cut the chicken*. I thank Salvador Valera for bringing this to my attention. Note also that these sentences are instances of the *hacer* ... *por* construction (in French *faire* ... *par*) in which the *por* PP is implicit (Zubizarreta 1985).
- 4 Similar findings were reported in earlier research (Bruhn de Garavito 2003).

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