Contact and contracting Spanish

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Abstract

This investigation is inspired by an interest in the contact/contracting grammars of heritage speakers of Spanish who have experienced prolonged exposure to English in the United States and, in particular, what their linguistic performance reveals of their knowledge of lexical subclasses and discursive properties associated with ordering of sentential constituents in the Spanish language. Analysis of data obtained for 24 participants on diverse measures of interpretation and production of unergative and unaccusative predicates and Topicalization and Clitic Left Dislocation constructions indicate that while properties of the core syntax (e.g., properties of TP, AgrS, and AgrO) remain robust, properties of the lexico- and discursive-semantic interface may be vulnerable to attrition or respecification.

Key words

- attrition
- convergence
- syntax

1 Introduction

It has been well-established that prolonged contact between two languages may promote convergence, defined by Bullock and Toribio as “the enhancement of inherent structural similarities found between two linguistic systems (2004a, p.91).” Moreover, a reduction in frequency of use of a language in bilingual settings may be reflected in variability and decline in linguistic performance (cf., Dorian, 1981; Silva-Corvalán, 1986, 1991, 1994/2000; Thomason, 2001). These patterns of convergence and discrepancies from the norm may be particularly pronounced when the language is not nurtured or where normative pressures are lacking. In these contexts, the socially dominant language may encroach on domains that are critical for the acquisition and development of the full monolingual variety of the minority language, resulting in what has been termed “transitional bilingualism” (Lipski, 1993), “incomplete acquisition” (Montrul, 2002), or “incomplete replication” (Bullock & Toribio, 2004b). Such is the case for many bilinguals of Spanish language heritage who reside in the U.S.

1 The typical profile of heritage speakers features and behaviors coincide with those described by Lipski (1993) in his discussion of the ontogenesis of “transitional bilingualism”: little or no school training in Spanish; Spanish spoken in earliest childhood as the language of the home often in conjunction with English; a rapid shift to English before adolescence; subsequent Spanish use limited to intimate circles; responding to bilinguals partially or wholly in English when addressed in Spanish.

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Consider the data in (1)–(4), culled from pertinent studies of Spanish heritage speakers. In (1), from Toribio and Nye (2005), heritage Spanish speakers exhibit indeterminate knowledge and emergent restructuring of reverse psychological predicates such as *gustar.* These bilinguals converge on strategies that favor transparency in thematic mapping and syntactic licensing, among others, dedicating the preverbal position to the structural subject (1a) and identifying the Experiencer as the structural subject (1b). In (2), from Montrul (2002), heritage speakers demonstrate nontarget and variable knowledge of the differences between imperfect and perfective meanings in tasks that required them to assess as logical or illogical sentences with predicates of accomplishment, achievement, and state. In (3), from Silva-Corvalán (1994/2000), heritage Spanish-English bilinguals’ productions comprise pronominal adjectives without concomitant semantic import and expressions of inalienable possession with a possessive pronoun rather than the sanctioned determiner. And in (4), from a more recent publication by Montrul (2004), heritage Spanish speakers additionally present target-deviant patterns in the use of semantically-conditioned direct object marker *a* and clitic-doubling (cf., Montrul, 2002, 2005).

(1) a. Los artistas de rock-en-español disgustan a mi madrina.  
\[\text{the Spanish rock artists desgustar-3PL DAT my godmother}\]
\[\text{cf., Los artistas de rock-en-español le disgustan a mi madrina.}\]
\[\text{‘My godmother dislikes Spanish rock artists.’}\]

b. (A) mis compañeros les gusta el dulce de leche.  
\[\text{DAT my peers CL-DAT–3PL gustar-3PL the dulce de leche}\]
\[\text{cf., A miscompañeros les gusta el dulce de leche.}\]
\[\text{‘My room/workmates like dulce de leche.’}\]

(2) a. La clase era [IMP] a las 10 pero empezó a las 10:30.  
\[\text{La clase fue [PRET] a las 10 pero empezó a las 10:30.}\]
\[\text{‘The class was at 10 but started at 10:30.’}\]

b. Los González vendían [IMP] la casa pero nadie la compró.  
\[\text{Los González vendieron [PRET] la casa pero nadie la compró.}\]
\[\text{‘The González sold the house but no one bought it.’}\]

c. Pedro corría [IMP] la maratón de Barcelona pero no participó.  
\[\text{Pedro corrió [PERF] la maratón de Barcelona pero no participó.}\]
\[\text{‘Pedro used to run/ran the Barcelona marathon but he did not participate.’}\]
\[\text{(Montrul, 2002)}\]

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2 In the *gustar* class of psychological predicates the Theme appears in Nominative case and controls agreement, and the Experiencer is marked with Dative case, that is, its mapping mirrors that of ‘to be pleasing to’ (cf., Martín, 1998). The properties that typify the *gustar* class of psychological predicates in the monolingual variety of Spanish are: the Theme or the Experiencer may precede the verb; the Theme is marked with structural Nom case and the Experiencer is marked with lexical Dat; agreement on the Verb controlled by the Theme (3SG/PL); an Obligatory Clitic (DAT–3SG/PL) “doubles” the Experiencer.
(3)  
a. la más importante persona  
   ‘the most important person’  
cf., la persona más importante  
b. ... y me dieron en la cara y me quebraron mi jaw.  
   ‘... and they hit me in the face and broke my jaw.’  
cf., ... y me dieron en la cara y me quebraron la mandíbula.  
(Silva-Corvalán, 1994/2000)

(4)  
Y lo que hizo el lobo era también comió la Caperucita. Lo que hizo el cazador para dar un lección al lobo fue cortar el estómago del lobo y quitar la abuela y la Caperucita.  
cf., ...comer a la Caperucita... cortarle el estómago... y quitar a la abuelita...  
‘And what the wolf did was also eat the Little Riding Hood. What the hunter did to teach a lesson to the wolf was to cut the wolf’s stomach and take out the grandmother and the Little Riding Hood.’  
(Montrul, 2004)

As aptly stated by Montrul (2004, p. 126), “If bilinguals display patterns of language loss, of particular interest for linguistic theory is to identify the potential vulnerable areas of grammatical knowledge, and to seek reasons to explain why systematic patterns of erosion or incompleteness, if they exist, look the way they do.” In this respect, it merits pointing out that notwithstanding their non-target performance, the bilinguals whose speech is sampled in (1–4) demonstrate forms with properties diagnostic of a complete core Spanish grammar, among these, the functional projections and features of TP, AgrS, and AgrO that regulate verb raising and license null subject arguments, among other properties of Spanish. More specifically, grammatical differences and deficits, where present, may be restricted to the lexical and interpretive modules, rather than the narrow syntax (cf., the works of Sorace on near native speakers). For example, in (5), from Toribio et al. (2005), heritage speakers’ written recall narratives present felicitous forms indicative of a loss of the discursive/pragmatic constraints that govern the use of null and overt pronominal subjects.

(5)  
Un ratón de la ciudad se visitó a su amigo que vive en el campo. Cuando *él estaba allí  
*él le dijo a su amigo “Ven conmigo a la ciudad” y su amigo dijo “ok.” Después del viaje,  
el ratón trata de encontrar una grande cena por su amigo. *Ellos se fueron a una casa  
grande y *ellos encontraron una mesa con quesos, carnes, y muchas otras comidas.  
De pronto, un grupo de gente entró y los dos amigos salieron porque el grupo les dio  
miedo. *Ellos se escaparon y el amigo del ratón dijo que prefirió la vida en el campo.  
‘A mouse from the city went to visit his friend who lives in the country. When he was  
there he said to his friend, “Come with me to the city,” and his friend said, “Okay.”  
After the trip, the mouse tries to find a big meal for his friend. They went to a big  
house and they found a table with cheeses, meats, and many other foods. Suddenly,  
a group of people entered and the two friends left because the group frightened  
them. They escaped and the mouse’s friend said that he prefers life in the country.’  
(Toribio, Zapata, Suárez-Budenzender, & Barnes, 2005)
Thus, for these speakers, the effects of contact with English are manifest not in the integration of new structures into the Spanish system, but in the preferential use of some structures over other options (cf., Klein, 1980; Koontz-Garboden, 2004), and in the loss of semantic and discourse-pragmatic constraints governing the use of specific variants (Silva-Corvalán, 1994/2000; Toribio, 2004). The present study, like the aforementioned works, examines the language behaviors of heritage Spanish speakers and what these behaviors reveal about language, its structure, and areas vulnerable to variability and convergence.

2 Syntactic targets of investigation

Consonant with the antecedent research, this inquiry further investigates the contact/contracting grammars of heritage Spanish speakers, and in particular, their knowledge of the lexical subclasses and discursive/pragmatic properties associated with ordering of sentential constituents.

2.1 Lexical subclasses: Unergative and unaccusative predicates

In Spanish, the ordering of constituents with monovalent verbs is determined by the subclass of the verb and the information structure of the clause into which the verb and its arguments are embedded (Contreras, 1976; Suñer, 1982). Unergative verbs have one argument generated in the Specifier of VP. When the sentence is neutral, the sole argument checks its nominative features in the Specifier of IP, as shown in (6). When the subject is focused, prosody-motivated movement (p-movement) of the verb to the left edge strands the subject in sentence-final position (Ordóñez, 1997; Zubizarreta, 1998), as in (7); this is the position occupied by focused constituents marked with the feature [+F(ocus)] given the parametric value of the Nuclear Stress Rule in Spanish (Zubizarreta, 1998).

(6) \[\text{IP Mi nieto \_ gritó \[\text{VP t}_j t_j]\]}\]
   ‘My grandson yelled.’

(7) \[\text{XP gritó \[\text{IP Sara} \_ t_1 [\text{VP t}_j t_j]\]}\]
   shouted Sara
   ‘Sara shouted (not Suzie).’

In the case of unaccusative verbs, the basic syntactic representation is one in which the single argument is generated as a sister to V and remains in this position when the sentence has a neutral interpretation or when the subject is focused, as in (8). This representation is altered when the predicate is focused: the subject moves to a higher position, allowing the verb marked with [+F] to remain in sentence-final position, as in (9).

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3 Zubizarreta (1998) proposes p-movement for XP constituents; here it is extended to Xₘ.

4 Perlmutter’s (1978) Unaccusative hypothesis brought to light the strong relationship between the lexical classification of unaccusative verbs and its syntactic effects. This relationship is illustrative of what Carter (1988) and Levin and Rappaport (1995) term “linking regularities” that strongly “support the idea that verb meaning is a factor in determining the syntactic structure of sentences (Levin & Rappaport, 1995, p.1).” This relationship between the lexical semantics of a verb and its syntactic projection has been explored in work on the syntactic properties of unaccusative verbs in Italian (Burzio, 1986) and in the development of unaccusativity diagnostics.
(8) \[\text{IP [I llegó [VP t, mi nieto]]}\
arrived my grandson\
'My grandson arrived.'

(9) \[\text{IP Mi nieto [I llegó [VP t]]}\
'My grandson arrived.'

The heritage speakers of interest here are likely to have acquired the afore-noted lexical properties (and attendant syntactic representations) and the prosody preservation rule of Spanish (by which focused elements appear at the right edge) very early on, since the acquisition of word order options in early childhood is cued by prosody (cf., Donati & Nespory, 2003). However, if these bilinguals have experienced incomplete acquisition or incipient loss of lexical distinctions and discursive/pragmatic constraints that interact with p-movement rules, they may present nontarget forms that may mirror those of learners (cf., Sánchez, Toribio, & Zapata, 2005). For Spanish heritage speakers in the U.S., the anticipated outcome is an insensitivity to the need for p-movement in contexts in which the subject of an unergative predicate is focused, as in (7), a lack of VS representations for neutral expressions with unaccusative predicates, as in (8), or a failure to discriminate between the latter and constructions in which the predicate of the unaccusative is focused, as in (9).

2.2
Clause-initial definite and bare direct objects:  
Clitic left dislocation and topicalization

With transitive bivalent predicates the canonical ordering for Spanish sentences is SVO, but structures encoding alternate pragmatic values that are modulated by the discourse context may be derived by preposing internal arguments to clause-initial position. In discussing sentential configurations, researchers such as Rizzi (1997), Poletto (2000), and Benincà (2001), among others, distinguish between the propositional content that is expressed in IP (termed Finiteness) and the articulation of discourse (termed Force) expressed by the projection of functional structure, including Topic and Focus, in the area of the left periphery. Of significance for the present discussion are the differences among three types of non-Focus object-preposing.

in other languages (Baker, 2003). Montrul (2005) studies other syntactic correlates for unaccusativity in Spanish, such as availability of participial absolute constructions with a subset of unaccusative verbs (cf., de Miguel, 1992) and postverbal bare plural subjects (cf., Torrego, 1989). In this paper, the analysis is limited to pre- and postverbal position of the subject.

5 The expanded CP layer is represented in (i), in which Foc is a single position and Top can be projected above Foc or Finiteness:

(i) Force...[Top*(Foc)] [Top*(Finiteness]

Benincà (2001) provides evidence for a refinement of the elements (and hierarchical positioning) of the structure of the CP, as in (ii), additionally suggesting that FocusP and Left Dislocation may contain more than one projection:

(ii) Hanging TopicP [ForceP [Left Dislocation [FocusP [IP...]

6 The differential behavior of Hanging Topics, Clitic Left Dislocation, and Topicalization is consonant with the “feature scattering” proposal of Giorgi and Pianesi (1997), according to which languages may select to scatter each discourse-marked feature on a distinct functional head (rather than opt for a single functional head projection that can host more than one feature).
As discussed in Zubizarreta (1998), Hanging Topics are not linked to elements in the IP, that is, they are base-generated in the left periphery, and are therefore not marked with the case of the resumptive element in the clause, as shown in (10). In contrast, Clitic Left Dislocation structures include CliticP, projected between IP and VP (cf., Sportiche, 1996), which attracts the definite direct object DP to its Specifier; as a consequence, definite direct objects cannot be fronted without the accompanying clitic, as in (11). However, generic or bare thematized objects are preposed without a resumptive element, as in (12).\(^7\)

(10) Hanging Topic
   Juan, lo vimos (a él) en la fiesta.
   John, CL saw–Ipl ACC him at the party
   ‘John, we saw him at the party.’

(11) Clitic Left Dislocation
   a la hermana de Juan la eligieron presidente.
   ACC the sister of John CL elected–3PL president
   ‘John’s sister was elected president.’

(12) Topicalization
   vitaminas tomo todos los días.
   vitamins take–ISG all the days
   ‘Vitamins I take every day.’

Thus, the preposing of the direct object DP in Clitic Left Dislocation and Topicalization is conditioned by properties of interpretation that surface in the formulation of utterances (Rivero, 1980). One such property is a definiteness effect: Clitic Left Dislocation structures are introduced by definite fronted DPs while Topicalization structures have a bare DP in initial position. If attested, the absence of the distinction between Clitic Left Dislocation and Topicalization among Spanish heritage speakers may be attributable to a failure to integrate discursive/pragmatic and syntactic information (Sorace, 2004) or to an insensitivity to the features of projections of the left periphery. It merits pointing out that heritage speakers are able to correctly interpret and produce object clitics (cf., Montrul, 2004); however, at issue is their deployment in the context of direct object preposing.

3 The present study

The present study was designed to test heritage speakers’ knowledge of the afore-noted lexical and discursive/pragmatic properties of Spanish by reference to their interpretation and production of structures presenting unergative and unaccusative predicates and preposing with Clitic Left Dislocation and Topicalization.

Twenty-four bilingual college students participated in the study. All identified themselves as having been exposed to Spanish since birth (early bilinguals), and all were

\(^7\) Note that both Clitic Left Dislocation and Topicalization structures differ from Focus fronting, in which there is contrast with the context or active presupposition (cf., Benincà, 2001; López, 2003).
enrolled in intermediate Spanish-for-Heritage-Speakers classes at three state universities in the United States. There were 11 men and 13 women, ranging in age from 18 to 23. All identified Spanish as their first language, and reported using it at home, though they preferred English at work or in school. The participants self-rated their reading, speaking, writing, and oral skills in Spanish, on a scale from one to five (1 being the lowest and 5 highest), and their ratings rendered the following averages: writing: 3.33; reading: 3.42; speaking: 3.92; and oral comprehension: 4.37.

Prior to being presented with test instruments, participants received a questionnaire referencing their personal history, patterns of language usage, and proficiency levels in Spanish. Three tasks were designed to probe participants’ preference for SV or VS orders with unergative and unaccusative verbs and their knowledge of Topicalization and Clitic Left Dislocation structures. The first task, adapted from Hertel (2000), contained 34 test items evenly distributed among the unergative and unaccusative verbs listed in (13) inserted into the full-focus or narrow-focus question contexts shown in (14) as well as six distractors.

(13) a. unergative verbs
   baile ‘to dance’, estornudar ‘to sneeze’, gritar ‘to scream’, llorar ‘to cry’,
   dormir ‘to sleep’, llamar ‘to call’, escapar ‘to escape’

   b. unaccusative verbs
   venir ‘to come’, salir ‘to go out’, desaparecer ‘to disappear’, llegar ‘to arrive’,
   nacer ‘to be born’.

(14) a. Full focus
   ¿Qué pasó? ‘What happened?’

   b. Narrow focus
   ¿Quién + V? ‘Who + V?’
   ¿V+ subject X?

Three options were presented for the response: subject-verb order (SV), verb-subject order (VS), or no preference, and participants were instructed to select the option that best reflected their language use. Sample questionnaire items appear in (15) and (16).

(15) a. ¿Qué pasó? (‘What happened?’)
   Unergative verb, full-focus context (7 items)
   You are walking to meet your friend María when all of a sudden a woman in
   front of you screams for no apparent reason. When you see María a minute
   later you have a puzzled look on your face. María asks you: ¿Qué pasó? (What
   happened?) You answer:
   A. Gritó una mujer. (VS). ‘A woman screamed.’
   V B. Una mujer gritó. (SV)
   →Which answer do you prefer?  A  B  No preference

   b. ¿Quién + V? (‘Who + V?’)
   Unergative verb, narrow-focus context (7 items)
   You are watching a musical show with your friend Luis. Luis goes into the
   kitchen to get a drink and while he is gone Julio Iglesias sings. He comes back
when the song has just ended and the public is giving a standing ovation. Luis asks you: ¿Quién cantó? (Who sang?) You answer:
A. Julio Iglesias cantó. (SV) ‘Julio Iglesias sang.’
√ B. Cantó Julio Iglesias. (VS)

→Which answer do you prefer? A B No preference

c. V+subject X?
Energative verb, narrow-focus context (3 items)
You are playing a game with your nephews, Jaime and Paco. Jaime gets mad because he is losing and yells. Their mother comes into the room and asks you: ¿Gritó Paco? (Did Paco shout?) You answer:
√ A. No, gritó Jaime. (VS) ‘No, Jaime yelled.’
B. No, Jaime gritó. (SV)

→Which answer do you prefer? A B No preference

(16.a) ¿Qué pasó? (‘What happened?’)
Unaccusative verb, full-focus context (7 items)
You are in a class and your professor turns her back to the class to write on the board for a few minutes. During this time a student suddenly leaves the class and slams the door. The professor turns around and asks: ¿Qué pasó? (What happened?) You answer:
√ A. Salió un estudiante. (VS) ‘A student left.’
B. Un estudiante salió. (SV)

→Which answer do you prefer? A B No preference

b. ¿Quién + V? (‘Who + V?’)
Unaccusative verb, narrow-focus context (7 items)
You and your roommate are wrapping birthday presents for your friend, Marta. Your roommate goes into the closet to get tape and while she is gone Marta walks in and sees the gifts. She leaves immediately and pretends she didn’t see anything. Your roommate heard someone come in, but doesn’t know who. She asks you: ¿Quién entró? (Who entered?) You answer:
A. Marta entró. (SV)
√ B. Entró Marta (VS)

→Which answer do you prefer? A B No preference

c. V+subject X?
Unaccusative verb, narrow-focus context (3 items)
It is time to clean your apartment. Your room mate Marta is ready to clean, but your other two room mates, Flor and Tere hate cleaning. You look for Flor and can’t find her anywhere. Marta sees you looking angry and assumes that it is Tere that disappeared. She asks you: ¿Desapareció Tere? (Did Tere disappear?) You answer:
A. No, Flor desapareció. (SV)
√ B. No, desapareció Flor. (VS)

→Which answer do you prefer? A B No preference
As indicated, with unergative predicates, SV word order is preferred in the full focus context (15a), while VS is favored with narrow subject focus (15b) and the contrastive subject focus (15c). For unaccusatives, full focus (16a) and subject focus (16b) privilege VS constituent order. In summary, all but one context—full focus with unergatives—favor VS order. (Narrow predicate focus, not included here, favors SV with unergatives and unaccusatives alike.)

Two written tasks were developed to probe participants' knowledge of Topicalization and Clitic Left Dislocation structures. Test A was a 24-item fill-in-the-blank questionnaire with items containing fronted definite inanimate singular DPs and others with plural counterparts; these items were expected to trigger Clitic Left Dislocation Constructions. Additional items consisted of bare singular inanimate DPs and one of a plural counterpart; these items were expected to trigger Topicalization. In order to avoid problems with gaps in knowledge of vocabulary, the sentences were based on experiences that are common to university students, and contained references to well-known places and objects. The examples in (17) illustrate the type of items found in the questionnaire.

(17) a. Fronted inanimate definite singular DP (8 items)
   La pizza ________ sólo en Papa John's.
   'Pizza ________ only in Papa John's.'

b. Fronted inanimate definite plural DP (8 items)
   Los libros ________ sólo en Amazon.com.
   'Books ________ only on Amazon.com.'

c. Bare DP singular (3 items)
   Música ________ sólo en la noche.
   'Music ________ only in the evening.'

d. Bare DP plural (1 item)
   Espinacas ________ sólo cuando estoy enfermo.
   'Spinach ________ only when (I) am sick.'

The four remaining items of Test A consisted of preverbal animate elements, which are more likely to be interpreted as agentive subjects and were used as distractors:

(18) Fronted animate DPs (4 items)
   Mi mamá ________ sólo los domingos.
   'My mom ________ only on Sundays.'

A second instrument, Test B, comprised 24 question-answer items with a fronted direct object DP as a prompt for the answer. The context for this questionnaire was a dialog about the organization of a surprise birthday party between an imaginary friend and each participant. Participants were asked to clarify who would be in charge of what at the party. All of the sentences contain authentic references to objects and tasks that the participating students would expect to find and do when organizing a party. As in
the previous task, fronted definite DPs were expected to trigger Clitic Left Dislocation structures and the bare DP, Topicalization:

(19) a. Fronted DP singular (9 items)
   ¿Quién trae el helado? Marcelo
   ‘Who brings the ice-cream? Marcelo’
   El helado __________________________.
   ‘The ice-cream __________________________.’

b. Fronted DP plural (7 items)
   ¿Quién prepara las ensaladas? Patricio
   ‘Who prepares the salads? Patricio’
   Las ensaladas __________________________.
   ‘The salads __________________________.’

c. Bare DP singular (2 items)
   ¿Quién compra cerveza? Juan Carlos
   ‘Who buys beer? Juan Carlos’
   Cerveza __________________________.
   ‘Beer __________________________.’

d. Bare DP plural (2 items)
   ¿Quién organiza juegos? Enrique
   ‘Who organizes games? Enrique’
   Juegos __________________________.
   ‘Games __________________________.’

Four items containing a fronted subject served as distractors:

(20) Fronted subject (4 items)
   ¿Quién conduce al supermercado? Natalia
   ‘Who drives to the supermarket? Natalia’
   Natalia __________________________.

The biographical questionnaire and test materials were administered during one class period; aggregate time for completion was 45 mins.

4 Results

The results revealed in heritage speakers’ performance are consonant with the hypothesis here: their grammars present evidence of indeterminacy in knowledge of argument mapping with subclasses of monovalent predicates and insensitivity to the syntactic correlates of definite- versus bare-DP preposing. We consider each in turn.
4.1
Knowledge of lexical subclasses: Unergatives versus unaccusatives

In evaluating the questionnaire that examined speakers’ knowledge of the mapping of subclasses of monovalent verbs and the interplay with the prosody preservation rule of Spanish, items were scored for selection of preferred word orders in diverse informational contexts: VS, SV, or No Preference. VS order was awarded two points, SV preferences were assigned one point, and NP choices, 0 points. Figure 1 depicts word order preferences (in mean percentages) with unergative predicates across three informational contexts examined.

Figure 1
Unergative predicates across informational contexts

A Friedman’s Chi-square analysis revealed significant differences between means in all three contexts for unergative verbs—Full focus context ¿Qué pasó? ‘What happened?’ (cf., 15a); \( \chi^2(2) = 38.734, p < .0001 \); narrow-focus context ¿Quién + V? ‘Who + V?’ (cf., 15b); \( \chi^2(2) = 16.42, p < .0003 \); and narrow-focus context ¿V + Subject X? (cf., 15c); \( \chi^2(2) = 26.41, p < .0001 \).\(^8\) In the full focus context ¿Qué pasó? ‘What happened?’, participants preferred SV constituent order in the response (58%). Pairwise Sign test comparisons confirmed a significant difference between SV and VS responses and between SV and No Preference responses. In the narrow subject focus context ¿Quién + V? ‘Who + V?’, participants selected SV and VS responses at identical rates (43%), and pairwise comparisons showed no significant difference between these. However, the difference between selection of the anticipated VS response and the No Preference response was significant. In the contrastive subject focus context ¿V + Subject X?, participants preferred VS order in their responses (76%); pairwise comparisons indicated significant differences between VS and SV responses and between VS and No Preference responses.

Figure 2 depicts participants’ behavior with unaccusative predicates across the three informational contexts examined.

\(^8\) A sincere debt of gratitude is owed to Patrick A. Bolger for his assistance with the statistical analysis. Mil gracias, Pat.
Figure 2
Unaccusative predicates across informational contexts

As with unergatives, a Friedman’s Chi-square analysis revealed significant differences between means in the three contexts — Full focus context ¿Qué pasó? ‘What happened?’ (cf., 16a): $[\chi^2(2) = 29.213, p < .0001]$; narrow-focus context ¿Quién + V? ‘Who + V?’(cf., 16b): $[\chi^2(2) = 15.798, p < .0004]$; and narrow-focus context ¿V + Subject X? (cf., 16c): $[\chi^2(2) = 43.99, p < .0001]$. Pairwise Sign test comparisons of participant responses in the full focus context ¿Qué pasó? ‘What happened?’ revealed a lack of statistical significance between the anticipated VS and the SV constituent order response; however, VS responses were preferred at significantly higher rates than No Preference (35% and 11%, respectively). In the narrow subject focus context ¿Quién + V? ‘Who + V?’, participants demonstrated the anticipated preference for VS constituent order over other options in their responses (71%); pairwise comparisons showed significant differences between VS and SV and between VS and No Preference constituent orders.

Lastly, in the contrastive subject focus context ¿V + Subject X?, subjects favored VS order in their responses (76%) and pairwise comparisons showed significant differences between VS and SV responses and between VS and No Preference responses.

4.2 Knowledge of syntactic correlates of definite- versus bare- DP preposing
Tests of knowledge of the semantic correlates of definite and bare DP fronting were coded for the type of construction produced. In addition to Clitic Left Dislocations and Topicalizations, participants produced other structures. In Task A, heritage speakers produced Clitic Left Dislocations with initial definite DP, as (21a), but they also presented ser passives, as in (21b), impersonal se passives, as in (21c) and intransitive predicates, as in (21d). Similarly, with definite DP fronting, participants exhibited a bias towards the use of se passives and intransitive structures, as well as alternative constructions, such as psychological predicates (22a) and pseudoclefts (22b). The intransitive predicates and alternative constructions favored by the subjects in the study were grouped together under the label Other for statistical analysis.

(21) a. El desayuno lo consumo sólo a las 10:00 de la mañana los sábados.
    breakfast CL eat–1sg only at 10:00 in the morning on Saturdays
‘Breakfast I eat only at 10:00 in the morning on Saturdays.’

b. El reloj es usado sólo los días de clase.
   The watch is used only the days of class
   ‘The watch is used only on class days.’

c. El desayuno se come sólo a las 10:00 de la mañana los sábados.
   breakfast CL-IMPERS eat–3SG only at 10:00 in the morning on Saturdays
   ‘Breakfast is eaten only at 10:00 in the morning on Saturdays.’

d. La pizza sabe buena sólo en Papa John’s.
   ‘Pizza tastes good only at Papa John’s.’

(22) a. Leche hervida me gusta sólo en la mañana.
   milk boiled CL-DAT pleases only in the morning
   ‘Boiled milk I like only in the morning.’

b. Leche con café es algo que yo tomo.
   ‘Milk with coffee is something that I drink.’

Figure 3 illustrates the constructions proffered in Test A, in percentages.

**Figure 3**
Structures produced in Test A

A Friedman’s Chi-square analysis revealed significant differences between means for the structures produced in Test A for Definite \[\chi^2(2) = 47.0914, \ p < .0001\] and Bare \[\chi^2(2) = 21.1055, \ p < .0003\] DPs. Pairwise Sign test comparisons for sentence-initial definite DPs returned results showing the differences between Clitic Left Dislocation and Topicalization to be statistically significant; however, there were no statistical differences between Clitic Left Dislocations and Passives or between Clitic Left Dislocation and Other constructions. Pairwise comparisons for sentence-initial bare DPs ascribed statistical significance to the difference between Topicalization and Other constructions, but no significance to the difference between Topicalization and Clitic Left Dislocation or to the difference between Topicalization and Passives.
In Test B, Clitic Left Dislocation predominates with definite DPs (23a), but participants continue to prefer passivization, as in (23b), and Topicalization options persist (23c). In the case of clause initial bare DPs, there seems to be a preference for Clitic Left Dislocation (24a) over Topicalization (24b), contrary to the target norm. However, as with previous conditions, additional structures, among these, passives (24c), emerged in the productions of heritage speakers.

(23) a. El pastel lo hace Cecilia.
   the cake CL make–3sg Cecilia.
   ‘Cecilia prepares the cake.’

   b. El pastel es hecho por Cecilia.
   ‘The cake is made by Cecilia.’

   c. La piñata compra Ignacio.
   the piñata buy–3sg Ignacio.
   ‘Ignacio buys the piñata.’

(24) a. Cerveza la compra Juan Carlos.
   beer CL-ACC buys Juan Carlos
   ‘Beer Carlos buys it.’

   b. Vino compra Martina.
   wine buy–3sg Martina
   ‘Wine Martina buys.’

   c. Verduras son compradas por María Teresa.
   ‘Vegetables are bought by María Teresa.’

Figure 4 depicts the types of constructions produced in Test B, in percentages.
As with Test A, Friedman’s Chi-square revealed significant differences between means, but only with Definite DPs \( [\chi^2(2) = 11.0600, p < .0114] \); no significant differences were found with Bare DPs \( [\chi^2(2) = 3.7674, p < .2877] \). As with Test A, pairwise Sign test comparisons for sentence-initial definite DPs return results showing the differences between Clitic Left Dislocation and Topicalization to be statistically significant; in addition, the difference between Clitic Left Dislocation and Other constructions was significant. However, there were no statistically significant differences between Clitic Left Dislocations and Passives. In contrast, pairwise comparisons for sentence-initial bare DPs ascribed no statistical significance to the difference between Topicalization and any other construction type.

5 Discussion

To recapitulate the findings, heritage Spanish speakers evince indeterminate lexico- and discourse-semantic knowledge. In particular, these participants demonstrate target-deviant interpretations of word order distinctions that are associated with full and narrow focus for subclasses of intransitive predicates. With unergative predicates, which feature a single argument that checks its features in the Specifier of TP, participants gave preference to the anticipated SV order in the full focus context, and the expected VS order in the contrastive subject focus context. However, they failed to appreciate the semantic differences between SV and VS constituent orders in selecting a response to the narrow subject focus context question ¿Quién + V? ‘Who + V?’ That is, they demonstrated target word order preferences in only a subset of the contexts presented for unergatives. These findings suggest variability in the application of the prosodic-movement rule of Spanish that applies to noncontrastive constituents and strands focused elements on the right edge of the sentence. For the heritage speakers studied, p-movement is correctly deployed when the subject is interpreted contrastively, as in (25a), but not when it carries new information, as in (25b):

(25a)  ¿Estornudó Paco? ‘Did Paco sneeze?’
       No, estornudó Jaime. ‘No, Jaime sneezed.’

(25b)  ¿Quién estornudó? ‘Who sneezed?’
       Jaime estornudó. ‘Jaime sneezed.’
       (cf., Estornudó Jaime.)

With unaccusative predicates, which feature a single internal argument, the participants appropriately preferred VS order in their responses to the narrow and contrastive subject focus questions, but failed to demonstrate significant differences in their interpretation of the candidate VS and SV constituent orderings in the response to the full focus context question ¿Qué pasó? ‘What happened?’ The finding that participants correctly strand the constituent marked with narrow focus and contrastive stress in the final position, as in (26a,b), could be construed as reflecting a sensitivity to the irregular mapping of unaccusative subjects. However, their nontarget responses in the full focus context, in which they failed to reject the SV order (26c), dictates otherwise; participants map the unaccusative argument to an external position and apply p-movement to strand the focused element (though with more regularity than with unergative structures).
(26) a. ¿Llegó Eva? ‘Did Eva arrive?’
    No, llegó Ana. ‘No, Ana arrived.’

b. ¿Quién llegó? ‘Who arrived?’
    Llegó Ana. ‘Ana arrived.’

c. ¿Qué pasó? ‘What happened?’
    Ana llegó. ‘Ana arrived.’
    (cf., Llegó Ana’.)

Thus, our heritage speakers’ performance unveils evidence of both variable application of p-movement and alterations in the syntactic mapping of the subjects of unaccusatives. Such results are suggestive of convergence with English. Further confirmation of convergence is found in observing that participants selected the SV order response over the No Preference response in each of the information contexts examined. To be sure, it would prove instructive to observe the word order preferences of heritage Spanish in the context of typologically diverse languages, for example, Spanish in contact with a VSO language.

With respect to DP preposing, Clitic Left Dislocation and Topicalization constructions are only erratically realized in the productions of our heritage Spanish speakers. And, even when these are manifested, they reflect an insensitivity to the semantic features of the fronted element and discourse features pertinent to the felicitous deployment of these disparate forms, as in (27). Clause-initial DPs are principally understood as subjects, and accordingly, they are inserted into ser and impersonal passive se structures, as in (28).

(27) a. Leche la tomo sólo en la mañana.
    ‘Milk I drink only in the morning.’
    (cf., Leche tomo sólo en la mañana.)

b. Verduras... María Teresa va a comprar las verduras.
    Vegetables... María Teresa will buy vegetables.
    (cf., Verduras compra María Teresa.)

(28) a. Fútbol es jugado sólo durante la temporada.
    ‘Soccer is played only during the season.’

b. Fútbol se juega sólo durante la temporada.
    soccer se plays only during the season
    ‘One plays soccer only during the season.’
    (cf., Fútbol juego/jugamos sólo durante la temporada.)

c. Las sodas serán compradas por Sofía.
    ‘The sodas will be bought by Sofía.’
    (cf., Las sodas las comprá Sofía’.)

Thus, more generally, participants demonstrate a reduction of syntactic options that disfavor the target forms, although the diversity of constructions in their productions is indicative of properties diagnostic of a complete core Spanish grammar. This reduction is consistent with some degree of convergence towards English word order, as noted above.
6 Conclusions and directions for future research

While this study has not properly assessed the social and cognitive factors that may be implicated in the target-deviant performance of Spanish heritage speakers (e.g., considerations such as impoverished input, dual language activation, contact with English), the nature of at least some of the pertinent syntactic attributes of contact/contracting Spanish grammars have been identified. Significantly, these properties fall outside of the core syntax and reference characteristics of the interpretive component: lexical information, semantic information (e.g., definiteness and specificity), and discursive information (e.g., [+F] and accompanying p- movement). Further study will examine the modularity of lexical-semantics versus discourse-semantics.

The prospective contributions of this work are manifold and may offer novel insights to numerous areas of linguistic study. Such findings may be of relevance to studies of diachrony, since, as suggested by Bullock and Toribio (2004b), “speakers model preferences that are subsequently reinterpreted by child learners as syntactic rules.” Therefore transmission of a linguistic system with variable forms that are biased towards convergence (e.g., SV(O)) could indirectly lead to syntactic change. In other words, a child acquiring Spanish may infer novel structures from such nontarget, however licit, native language forms (Meisel, 2001). Thus, researchers must examine the linguistic input to which heritage speakers are exposed, given that at least some nontarget forms may be attributable to indeterminate or converged input (cf., Clyne, 2003). Similarly, since linguistic convergence may be promoted by considerations of processing economy (cf., Muyssen, 2000), researchers must explore heritage speakers’ patterns of language usage: forms such as those attested here are more prevalent among bilinguals who are regularly called on to access and activate both language systems (Toribio, 2004).

These findings are likewise of potential importance for studies of second language learning, where interpretation and production of VS constituent ordering and Topicalization and Clitic Left Dislocation structures are predicted to be more nontarget-like since these require not only knowledge of lexico-semantic properties (e.g., unergative, unaccusative, definiteness, specificity), but also attendant knowledge of prosodic requirements and projection of structures (e.g., Clitic projection) that may be absent from the native language (cf., Hertel, 2003). Finally, the present project can contribute to debates surrounding the locus of language change, for if monolinguals may be found to demonstrate similar patterns in the lexico-semantic domain, then change cannot be unequivocally ascribed to contact (though contact may be a catalyst that exaggerates change). Likewise, similar patterns of performance found among Spanish monolinguals—enhanced in Spanish-speaking second language learners of English—can offer confirmation of systemic vulnerability in the properties at issue.

References


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