Running head: FOCUS REALIZATIONS IN NATIVE SPANISH

The Realization of Information Focus in

Monolingual and Bilingual Native Spanish

Tania Leal

University of Nevada, Reno

Emilie Destruel

The University of Iowa

Bradley Hoot

DePaul University

Corresponding Author:

Tania Leal
tanial@unr.edu
University of Nevada, Reno
Department of World Languages and Literatures
Edmund J. Cain Hall, Room 241
Mail Stop 0100
Reno, NV 89557-0100

Abstract

The strategies used to signal information focus—the non-presupposed part of a sentence—in Spanish are under debate. The literature suggests that focus must appear rightmost; however, empirical evidence shows that speakers also realize focus in-situ. Moreover, there is limited research investigating the effects of language variety or knowledge of another language on focus marking. We address these questions via a paced elicited production task, testing speakers who learned Spanish naturalistically in infancy, including two groups of monolinguals and two groups of Spanish/English bilinguals: (a) Spanish natives who learned English after childhood, and (b) early bilinguals exposed to English in early childhood (heritage speakers). Confirming previous empirical studies, results show that all participant groups choose a similar range of focus-marking strategies, vastly preferring in-situ marking with rightmost marking used rarely. Results challenge both theoretical accounts of Spanish focus realization and expectations of special vulnerability at the syntax-discourse interface for bilinguals.

Keywords: syntax-discourse interface, information focus, heritage speakers, Spanish

**The Realization of Information Focus**

**in Monolingual and Bilingual Native Spanish**

The investigation of how input characteristics affect language acquisition and development constitutes a central issue in bilingualism research. Although there is compelling evidence that differences in quantity and quality of exposure can affect acquisition outcomes (Ågren, Granfeldt, & Thomas, 2014; Paradis, 2011), many important questions remain open, including the amount of input necessary to "fully" acquire a language, or the manner in which differences in the input shape development and influence ultimate outcomes. Recently, a strand of research has focused on cases where the input speakers receive is interrupted at some point in development (see e.g., Montrul, 2008; Polinsky, 2011). Historically, questions related to changes and interruptions in the input have often been posed in the context of second-language (L2) classroom learners because they receive input that is qualitatively and quantitatively different from that which native speakers (often monolingual) receive. Overall, this research has found that, although an early start seems a crucial, perhaps even necessary, condition for native-like achievement, it does not guarantee it (Hyltenstam & Abrahamsson, 2003). Previous research shows that this issue is also relevant in the area of first language (L1) acquisition, given that native speakers can experience variable input to different extents (Hart & Risley, 1995; Huttenlocher, Vasilyeva, Cymerman, & Levine, 2002).

The effects of variable input appear to be especially discernible when another language is introduced, as with those speakers whose input is reduced or, more drastically, completely interrupted at some point during development, replaced with input from another language. In this

context, an important variable to consider is the age at which the reduction/shift takes place.[1] On one hand, some speakers experience this reduction early in the acquisition process—before acquisition can be considered "complete." These speakers, a subset of which are termed *heritage speakers* (HSs) in the context of the U.S., may use their native language at home but find a sudden reduction in the L1 input upon entering school, often around 5 years of age. As adults, they generally speak both the majority and minority languages, at times with markedly different proficiency levels in both.

On the other hand, other speakers may experience a reduction in input later in life (i.e., after acquisition is considered "complete"). This is the case of many *late L2 bilinguals* who learn the L2 after childhood to later move in adulthood to a country where the L2 is a majority language, experiencing a decrease in L1 input at that point. Importantly, both HSs and late bilinguals acquire their first language naturalistically as children. However, their life experiences are different from those of monolingual native speakers in that the input they receive is interrupted/changed at some point. By comparing the linguistic outcomes of different types of native speakers whose exposure to the native language varies, we can explore the role of input in language acquisition in a novel way.

The present study addresses these issues by focusing on the following populations: (a) monolingual native speakers from two different Spanish varieties (Mexico and Chile), and (b) two different types of bilinguals: HERITAGE SPEAKERS (early bilinguals) who are dominant in

---

[1] In terms of input reduction, L1 attrition and syntactic properties, the work by Flores (2010) is especially informative in cases where said reduction is almost complete. Focusing on Portuguese-German bilinguals and testing V placement in German, Flores found that children younger than 11 (7-10yrs) showed more attrition effects ("syntactic deficits", p. 1) than the older group (11 or older). As we will detail later, our study includes participants who experienced input reduction but this reduction was not complete in any of the cases. Additionally, instead of purely syntactic phenomena, we deal with an interface property.

the majority language (English) and LATE BILINGUALS who learn the L2 (English in this case) after childhood and who later, as adults, move to a country where the L2 is a majority language. We aim to understand whether these groups differ—and if so, how—with respect to their marking of information focus, often described as the non-presupposed part of a sentence that answers (explicit) *wh*-questions. By including two types of bilinguals (early and late), we aim to investigate whether the point at which the input change in dominance (in infancy vs. adulthood) has an impact in how information focus is realized.

This phenomenon is ideal for testing the effects of interrupted input because it involves the interface of syntax and discourse/pragmatics, a domain long identified as a site of special vulnerability in bilinguals, including in L2 acquisition,L1 attrition, and early bilingual contexts (Hulk & Müller, 2000; Sorace, 2011; Tsimpli & Sorace, 2006). Additionally, our paper contributes new empirical evidence to the ongoing debate on how focus is realized in Spanish. While the theoretical literature has widely argued that it must be realized rightward (moved to sentence-final position) to fulfill a prosodic requirement on the position of main stress (Zubizarreta, 1998), recent empirical studies (Hoot 2012, 2014, 2016; Leal & Slabakova, 2014) provide challenging evidence that focus can, and frequently does, remain in situ. However, many of the previous empirical studies used acceptability tasks and other offline methods. Thus, one major contribution of our study is that it provides evidence from a much less documented area, namely language production.

## 1. Bilingualism and the Role of Input

Given that L1 acquisition outcomes have been argued to be, generally, quite uniform, it should hardly be surprising that the investigation of the input provided to L1 acquirers has typically attracted less attention from researchers. Additionally, most of the child L1 acquisition literature

initially focused on monolingual acquirers with relatively homogeneous backgrounds. Given that these often involved families with middle class backgrounds it would be reasonable to expect that these families would not differ substantially from each other in terms of the type of input that children receive. In contrast, within the literature on bilingualism, the effects brought about by differences in the input speakers receive have been studied in earnest. Previous studies of bilingual and L2 acquisition show that reduced input quantity and a delayed age of onset can delay the rate of acquisition of morphosyntactic properties such as agreement (Gathercole & Thomas, 2005; Unsworth, Argyri, Cornips, Hulk, Sorace, & Tsimpli, 2012). Furthermore, based on studies carried out with child bilinguals (simultaneous and sequential), Meisel (2009) proposed a critical period for morphosyntax at around 4 years of age—beyond that, he argues, the acquisition process becomes an L2 situation rather than 2L1 (i.e., simultaneous bilingualism). This leaves open the question of what happens when a child is introduced to an L2 after this proposed critical period but then receives less input—or none at all—in her L1 after the introduction of her second language. In this study, we aim to address input-related questions by including groups of speakers that vary in different dimensions: number of languages spoken, language variety, and language dominance.

As mentioned earlier, a growing field of inquiry has focused on bilingual speakers who acquire an L1 minority language at home in a naturalistic setting and later acquire the majority language of the community, which frequently constitutes their chronological L2 (Silva-Corvalán, 1994; Toribio, 2001; Valdés, 2005). A subset of these bilinguals, termed heritage speakers (HSs) of their first language, differ from monolingual L1 acquirers in terms of exposure, development, and maintenance of their chronological L1, whose presence is limited to certain contexts and individuals (Montrul, 2010). Not surprisingly, much of the research focusing on this population,

typically tested in adulthood, has found differences in their linguistic performance as compared with that of monolinguals (see Montrul, 2008; Benmamoun et al., 2013 for review). Nevertheless, these findings are not uniform, and other investigations have failed to find evidence of said differences. Furthermore, these differences show important asymmetries in domain, with phonology shown to be typically less affected (e.g., Yeni-Komshian, Flege, & Liu, 2000) than inflectional morphology (e.g., Montrul, Foote, & Perpiñán, 2008) or discourse/pragmatics (Montrul & Polinsky, 2011).

Several competing explanations exist regarding the nature and source of the descriptive differences that have been identified in heritage speaker grammars. Two important notions to consider—language attrition and incomplete acquisition—are hypothesized not to be mutually exclusive (Polinsky, 2006) because they could possibly describe the same individual at the same point in time with respect to distinct linguistic phenomena (Montrul, 2009). *Language attrition* refers to the gradual process of loss or extreme weakening of (previously acquired) language knowledge, while *incomplete acquisition* refers to a situation of "arrested development": the failure to acquire (rather than the loss of) linguistic knowledge due to lack of sufficient input or to input interruption. Montrul (2008, 2009) argues that (individual) attrition can only occur when a grammatical system (a) can be considered fully developed and (b) has been stable for a substantial period of time.[2]

---

[2] The term "incomplete acquisition" is somewhat controversial because some researchers object to what they believe is a negative evaluative judgment inherent to the dichotomy "complete/incomplete" (Pascual y Cabo, 2013; Pascual y Cabo & Rothman, 2012). A main point of contention is "incomplete acquisition" encompasses properties that are not target-like but does not differentiate between the phenomena that are present in the input versus those that are not. They argue that if the input (from potentially attrited speakers) does not provide evidence for a given construction, it cannot reasonably be called incomplete (Pires & Rothman, 2009) and should instead simply be labeled "different." It should be said, however, that Montrul (2008) has maintained that her use of the term is purely descriptive.

In the context of the foregoing, it is uncontroversial to emphasize that the differences between monolingual L1 acquirers and HSs can be traceable in substantial measure to differences in the input they receive (Leal Méndez, Rothman & Slabakova, 2015). As opposed to monolingual L1 acquirers, HSs live in a situation of language contact and are necessarily bilingual—by definition, they are unbalanced bilinguals in the sense that the heritage language is always a minority language (Rothman, 2007; Valdés, 2001). As such, the *quantity* of the input they receive in the heritage language is crucially reduced, although this reduction is subject to substantial individual variation. The input HSs typically receive is also *qualitatively* different from what monolinguals receive in at least two non-trivial ways. First, HSs rarely have access to formal registers of the language (Pires & Rothman, 2009), which can be decidedly different from the input L1 monolingual speakers receive. This is especially true with respect to specific grammatical properties, some of which are only taught in school (e.g., inflected infinitives in Brazilian Portuguese, see Rothman, 2007), and HSs are normally schooled in their dominant language and not in the heritage language.

Second, the input HSs receive is typically provided by speakers who may also be bilingual and may experience L1 attrition themselves. Thus, Rothman (2007) has argued that in order to investigate the linguistic outcomes of heritage grammars, one must ascertain whether the input providers have experienced attrition themselves *before* investigating whether the properties in question show signs of erosion in the HSs. The reasoning is that researchers should avoid studying compounded effects—attributing behavioral/linguistic change to HSs when this change is already present in the input they receive (Pires & Rothman, 2009). Although this methodological issue is often recognized, most HS research still lacks this control, with some exceptions (e.g. Leal Méndez et al., 2015).

The studies outlined above indicate that the differences between HSs and other native speakers may come down to quantity and quality of the input. Here, we argue that any definition of what makes a speaker "native" must have at its core the experience of naturalistic acquisition in childhood. Thus, we contend that HSs constitute an interesting test case of native speakers whose exposure to input in their chronological L1 is qualitatively and quantitatively different from the input of monolingual native speakers, such that certain areas of grammatical competence may not reach what are generally considered "native" levels. By examining one area that has been considered especially susceptible to variations in the input—the realization of information focus— across groups of native speakers with different input and acquisition histories, the present study contributes new evidence of how differences in input affect competence.

## 2. Information focus marking in Spanish

We understand FOCUS to be an information-structural notion denoting the part of the sentence that makes available a set of alternatives the speaker takes to be salient (Krifka, 2008; Rooth, 1992), and which in turn conveys information about how the utterance fits into larger discourse structures (Kadmon, 2001). Example (1) bears focus marking on the grammatical subject, indicating that the alternative propositions of the form 'x brought some wine' are relevant for interpretation.

(1) [John]$_F$ brought some wine.[3]

The information structure literature distinguishes at least two focus types (Kiss, 1998; Gussenhoven, 2007) according to how the focal alternatives are exploited in the sentence:

---

[3] The general assumption is that every sentence has at least one focus (Domínguez, 2013). Here, we are concerned with "narrow" (single-phrase) focus rather than "broad" (whole-sentence) focus.

INFORMATION (presentational) focus and CONTRASTIVE (corrective) focus. Information focus is commonly defined as the simple introduction of non-presupposed information to the discourse, identified in question/answer pairs as the constituent that resolves the variable opened by a *wh-*element. In (1), *John* is an information focus that constitutes a felicitous answer to the question *Who brought some wine?* Contrastive focus, on the other hand, supplies information while also negating one or more alternatives to the focus expression. In the present paper, we restrict our attention to information focus and examine its realization(s) in Spanish.

Crosslinguistically, focus is generally signaled via prominence, although the strategies used to achieve prominence may differ (Büring, 2009; Vallduví & Engdahl, 1996). Languages such as English signal focal constituents primarily via prosodic prominence, whereby focus typically carries the main pitch accent. Languages such as French realize focus by placing it in a designated syntactic position or by using syntactic re-ordering strategies such as clefting. Spanish, on the other hand, has been claimed to preclude movement of prosodic prominence to the location of focus. Instead, the literature has largely argued that information focus is marked syntactically, with focal constituents appearing sentence-finally (Bolinger, 1954; Büring & Gutiérrez-Bravo, 2001; Contreras, 1978; Costa, 2001; Domínguez, 2004a, 2004b; Gutiérrez-Bravo, 2002, 2008; Ortega-Santos, 2006; Samek-Lodovici, 2001; Zubizarreta, 1998). In this view, subject focus is only possible with clause-final subjects, as in (2a), meaning that examples such as (2b) are infelicitous (see Casielles-Suárez, 2004; Olarrea, 2012 for alternative views). Even under the view that subject focus is clause-final, though, it is not the case that all clause-final subjects are necessarily in focus. For example, unaccusative verbs and questions both have post-verbal subjects, which is why we limit our discussion to declarative sentences with transitive verbs, in which movement to final position must be for discourse reasons. For focus constituents that already

occur at the edge of a clause, there is no evidence that they occupy a different position from that

which they occupy in broad focus (i.e., if the preceding question is of the form *What happened?*).

(2)     Context: Who brought the wine?[4]

a. Trajo     el    vino [**Juan**]F.

   brought   the   wine Juan

   'Juan brought the wine.'

b. # [**Juan**]F trajo el vino.

The most influential theoretical account of this movement has been put forward by

Zubizarreta (1998). In her view, focus movement results from the focus needing to receive main

stress; movement results from the competition between two stress rules: the Focus Prominence

Rule (FPR) and the Nuclear Stress Rule (NSR). The FPR requires that main stress fall on the

focused element, while the NSR requires that stress fall on the lowest constituent in the asymmetric

c-command chain (generally the rightmost constituent in Spanish). If there is a mismatch between

where stress should be located (i.e., focused element vs. lowest in c-command), the conflict is

resolved by *p-movement* (prosodically-motivated movement).

P-movement is exemplified in (3). In (3a), the FPR requires that stress be placed on *Juan*

(focus), but the NSR requires stress to the right, on *vino*. This conflict is resolved in (3b) with the

movement of non-focal material so that both stress rules apply to the same constituent.

(3)     a.        *FPR           NSR
                    ↓              ↓
                 [Juan]F trajo el vino.
        b.                         FPR  NSR
                                    ↓↓
                 [VP Trajo el vino] [Juan]F tVP

---

[4] We indicate sentence stress in boldface, while focus is marked with brackets and the subscript 'F'. Infelicity is indicated with the sign '#'.

Although it has been widely accepted that focus in Spanish is necessarily final (with p-movement as its theoretical explanation), there is a growing empirical body of work challenging this view. Several recent quantitative studies employing judgment and production experiments have found that focus in several different varieties of Spanish may not have to be final (Hoot 2012, 2014 for Mexican Spanish; Gabriel, 2007, 2010 for Argentinean Spanish; Muntendam, 2009, 2013 for Andean Spanish; Vanrell & Fernández Soriano, 2013 for Peninsular Spanish). We note that these data have been obtained mostly with offline, judgment tasks: In this regard, our data provides an important complement to the extant experimental evidence.

In a similar vein, within the syntactic literature, we have no reason to expect asymmetries between constituent types (e.g., subject vs. object) because most accounts propose a single focus realization mechanism for all constituents in focus, whether that be movement, stress shifting, clefting, or other strategies; yet previous studies also show that the constituent in focus may affect how focus is made prominent (Hoot 2012, 2014; Gabriel, 2010). Apart from the unavailability of focus fronting via movement for subjects (which are already fronted), the theoretical literature predicts that focus-marking strategies will apply equally to subjects and objects. However, the predictions are different based on experimental work. For example, Hoot (2014) reports that (monolingual) native speakers of Mexican Spanish do show an asymmetry between acceptable focus marking strategies for subjects vs. objects. Here again, the present work adds production data to complement previous work using judgments. In any case, the empirical facts about focus in Spanish thus remain an open question requiring additional research, which is one of the goals of the present paper.

### 3. Research Questions, Hypotheses, and Predictions

In light of the theoretical issues outlined above, our **first research question** asks: how is information focus realized in native Spanish? Within this research question we also address the issue of whether the syntactic function of the constituent in focus (subject vs. object) is a factor in the realization of focus. Building on the first question, our **second research question** further asks: do early and late bilingual speakers differ from adult monolingual speakers and from each other in their focus-marking strategies? As mentioned earlier, the consensus view in the syntactic literature predicts that information focus will be realized in sentence-final position, where it also receives main stress, regardless of the constituent in focus. However, as previously noted, several recent experiments using judgment tasks have found that Spanish speakers do accept sentences in which the focus is stressed in its canonical position. These results predict that information focus in the present experiment will be realized, at least occasionally, in non-final position (without evidence of movement).

Regarding the second research question, studies in the bilingual and heritage language literature predict that differences in the input speakers receive (operationalized by the group they belong to in our study) will affect their competence. Hence, we compare the results of the two monolingual groups with a group of L1 Spanish speakers who are (late) Spanish-English bilinguals. If we only included the latter group (something that is quite common in L2 acquisition studies), we would not be able to differentiate (Spanish) language variety from contact with English. Thus, by including two monolingual groups and comparing them with a Spanish-English bilingual group, we can investigate whether contact with English has an effect in their production of focus. This should be especially true for information focus, given previous evidence that the syntax/discourse interface is a locus of special vulnerability both for adult bilinguals (Sorace,

2011) and HSs (Benmamoun et al. 2013; Montrul & Polinsky, 2011). A small number of previous studies of focus in HSs using judgment tasks (Hoot 2012, 2016; Leal et al., 2015; Rothman, 2009) have failed to find the expected effects of interrupted input on focus. Based on these experimental results, we expect at least some bilinguals to realize focus in the same way as the monolingual groups. Note, however, that previous investigations do not involve production tasks—an issue we address in the present study.

Interestingly, for both research questions, the predictions from the theoretical literature differ from those stemming from experimental studies. These discrepancies highlight the need for additional data. Settling open empirical questions is essential for constructing theories that are well supported by data, which is one main contribution of the present work.

## 4. Methodology

### *4.1. Participants*

Ninety-two participants, all of whom acquired Spanish naturalistically in infancy and throughout childhood, took part in this study. They were divided into four groups: monolingual Spanish speakers from and residing in Mexico (n = 20); monolingual speakers from and residing in Chile (n = 22); bilingual speakers raised monolingually in Spanish who acquired English as an L2 in school (*late bilinguals*, n = 16); and bilingual speakers who learned both Spanish and English as children (*heritage speakers*, n = 34). The parents of heritage speakers were mostly (but not exclusively) speakers of Mexican Spanish, as we detail below. The latter two groups all resided in the Midwest of the U.S. at time of testing and, consistent with their residence in the U.S., lived in an environment where English is the dominant language. Participants received monetary compensation for their participation.

Mexico was chosen for one of the bilingual groups for comparability to the heritage speaker group, because Mexican Spanish is by far the most common variety spoken in the United States, and because there exists experimental data on Mexican Spanish (Hoot 2012, 2014, 2016; Leal & Shea, 2012). Because this previous work revealed that Mexican Spanish allowed non-final focus, another group of monolinguals was needed for comparison to isolate whether this result was a dialect feature or a more general trend. Chile was chosen for the other monolingual group in order to have a comparison variety that was a Latin American dialect not in significant contact with Mexican Spanish or English, and which was not a Caribbean dialect, because Caribbean Spanish has different syntactic restrictions on subject position (Camacho, 2006) We are not aware of any previous work on information structure in Chilean Spanish; including this previously unstudied variety thus also expands the empirical coverage in the literature.

To better understand the linguistic profiles of the heritage and bilingual speakers, we had them complete a detailed questionnaire including questions about family history, formal education, age of arrival, language use, self-perceived language ability, and frequency of contact with Spanish in various contexts.[5] The late bilinguals (mean age 30.3, range 22-49, SD 7.5) had, on average, lived in the U.S. for 6.9 years (range 1-20, SD 6.6) with an average age of arrival of 23.6 years (range 18-30, SD 3.4). They were from various countries of origin (Spain, Mexico, Puerto Rico, Costa Rica, Venezuela, and Colombia).[6] All late bilinguals reported Spanish as their dominant language, including the two individuals who had resided in the U.S. the longest. Two others

---

[5] The background questionnaires for two of the late-bilingual participants were lost due to a technical problem; we report on the information of the remaining here.
[6] We would like to note that although the numbers of participants are not evenly divided among the countries, these speakers have contact with speakers of many other varieties of Spanish—above and beyond those countries represented in our sample.

claimed to be equally dominant in Basque. Their self-rated proficiency in Spanish was 9.9 out of 10. When asked to rate their proficiency in English, they reported an average of 8.1 out of 10.

In the HS group (28 females, mean age 20.3, range 18-26, SD 1.8), 85% of participants reported that both parents were born in a Spanish-speaking country (mostly Mexico, but also Guatemala, Bolivia, Colombia, and Ecuador); all had at least one such parent. The majority (79%) were born in the U.S.; of the seven subjects who were not, the average age of arrival was 7.1 years. When asked about their dominant language, 52.9% reported English was their dominant language, 26.5% said they felt most comfortable using both languages, and 20.6% reported that Spanish was their dominant language. When asked to rate (1-10 scale) what they believed their current level of Spanish was (10 being the highest), the average was 7.8. Overall, only 20.6% rated their proficiency below 7.

Because HSs vary significantly in Spanish proficiency, these participants also completed a proficiency test. The first part, an abridged version of a standardized test used for official Spanish language accreditation in Spain, DELE (*Diploma de Español como Lengua Extranjera*), included 30 (randomized) multiple-choice items focusing on grammar and vocabulary. The second part consisted of the reading and vocabulary sections of the *Modern Language Association*'s Cooperative Foreign Language Test (Educational Testing Service, Princeton, NJ): 20 multiple-choice items in a coherent paragraph. This proficiency test has been used successfully as a discriminator of proficiency in prior L2 and heritage Spanish acquisition research (e.g., White, Valenzuela, Kozlowska-MacGregor, & Leung, 2004). Instructions and test items were in Spanish. Following cutoff points in the experimental literature (e.g., Montrul, 2004), participants who scored 40 or above—out of 50 possible points—were assigned to the *advanced* group (n = 18), those who scored 35 or below to the *intermediate* group (n = 16). These two groups presented few

demographic differences: roughly the same percentage of each group was born in the U.S. (81%

intermediate, 78% advanced); roughly the same proportion (slightly over 50%) of each group

reported being English-dominant; and their ages and self-ratings in English were similar. The

advanced group gave an average self-rating in Spanish that was higher (8.3/10) than the

intermediate group's (7.2/10), but overall the main differences between the two groups appeared

in their reported language use.

<INSERT TABLE 1 ABOUT HERE>

As seen in Table 1, the most common Spanish interlocutors for both HS groups were

parents and other relatives. With siblings, friends, partners, and co-workers, they reported using

either English or both Spanish and English. Importantly, the groups differ in the proportion of

Spanish use: the advanced HSs use Spanish to a much greater degree with both parents, particularly

with their mothers, as well as with other relatives, than the intermediate HSs. In the same vein,

80% of the advanced group reported using Spanish at home, while only 20% of the intermediate

group reported the same. For both groups, Spanish was predominantly used in religious services.

English was more commonly used at school and work for both groups. Language use during their

free time was also revealing: 71% of the intermediate HSs used only English during free time,

while the advanced group reported using more Spanish or both Spanish and English. The advanced

HSs also reported less English-only use with friends and siblings, using both languages instead.

Clearly, according to this self-reported data, the two groups differ significantly in their

daily use of their two languages. This difference in use (and, presumably, input) apparently extends

throughout their lives; for example, nearly twice as many speakers in the advanced group than in

the intermediate group (13/18 vs. 7/16) reported having spent more than a month in a Spanish-speaking country.

For the late bilinguals, Spanish predominated with all types of family members, although around half of the participants reported using mainly English at home and with partners. With friends, at school, and at work, the majority of speakers reported using both English and Spanish.

Before moving on to describing the experimental task, we must acknowledge one potential limitation to the background questionnaire: it does not provide detailed information about speakers' linguistic experience during childhood, and as such does not allow us to exactly characterize the quality and quantity of input speakers received. Nevertheless, for the purposes of the current study, we take language use and proficiency to correlate with input, in addition to the presumed differences in input based on exposure among speakers who are monolingual in Spanish, those who are raised monolingually and then move to the U.S. (the late bilinguals), and those raised in the U.S. (the heritage speakers).

### 4.2. Procedure and Materials

In order to examine the strategies of focus realization, we used a paced production task. One limitation of previous empirical work on focus in Spanish is that most studies have used acceptability judgment tasks. Although these are valuable in evaluating the claims in the theoretical literature, they also have well-known drawbacks, including the fact that possible responses are limited to structures that were pre-selected by experimenters and may not reflect actual production. Our study addresses this problem by using a paced production task that allows speakers to have much more freedom in their responses. Although this method is not equivalent to spontaneous, naturalistic speech, it has the advantage of showing how speakers choose to realize

focus when given (relatively) free rein. It is often noted in quantitative linguistics that production studies are desirable, but there is only one previous study of focus in Spanish that used a production task (Gabriel, 2010), and it examined monolingual speakers of a single dialect. During the task, participants watched a video on a computer screen. It began with instructions in Spanish explaining the nature of the task. Participants then watched a series of short clips (approx. 15 seconds) taken from a silent film. After each clip, participants were presented with a question targeting different information-structural readings and a still from the video to remind them what had happened.[7] Participants were instructed to answer aloud as naturally as possible using complete sentences and including as many details as possible. This instruction was included to avoid uninformative answers consisting of a single-constituent answer and "yes" or "no" answers. Participants had ten seconds to respond before the next clip began; the software did not allow for video replay. Answers were audio recorded with the software Audacity.

Questions were designed to manipulate the GRAMMATICAL FUNCTION of the constituent in focus (subject, direct object). Example (4) constitutes a token in the *subject focus* condition and (5) the *object focus* condition.

(4)    *Subject Focus*

¿Quién montó el caballo en el circo?

'Who rode the horse in the circus?'

(5)    *Object Focus*

¿Qué tiró al piso el vagabundo?

'What did the tramp throw on the ground?'

---

[7] Movie clips were text-free excerpts from Charlie Chaplin's "The Circus" (1928).

Five lexicalizations were created per condition (corresponding to five different video clips) for a total of ten experimental items. These items, along with 65 distractors (e.g. corrective focus), were then distributed across three experimental lists of 25 items each, distributed across conditions and distractors. Items were distributed in three lists, in order to avoid fatigue and repetition, so that no single participant saw all the target stimuli for either condition. Each focus-eliciting wh-question included three constituents aside from the verb (which was always transitive): a subject, an object, and an adjunct (always a prepositional phrase). Although participants were free to respond as they saw fit, these three constituents were included in the context questions to encourage, but not force, participants to use similar constituents in their answers. Although this method has been commonly used in prior elicitation tasks on focus (see for instance Gabriel, 2010; Skopeteas & Fanselow, 2010), full sentences, where the given information is repeated in its full lexical form, might appear to be rather unnatural, and unlikely to appear in spontaneous speech. Yet, for the purpose of the present experiment, such answers are needed (i.e. the most informative) to be able to analyze the exact realization of the focus item. Indeed, although we concede that a single constituent answer is the most natural way to respond to a *wh*-question, it would be impossible to tell whether a special strategy such as final movement was used. In light of this brief cautionary note, we take our results to be representative of an experimental set-up, similar to prior studies cited in the background section, and not necessarily fully representative of spontaneous, colloquial speech.

The lexical items used in the context questions were necessarily dependent on the action in the video, which made it difficult to control for frequency and complexity or prosodic weight of the noun phrases. To avoid confusion, the main characters from the video were identified before

the experiment began.[8] A still from the video and an example of a prompt are provided in Figures 1 and 2.

<center>&lt;INSERT FIGURE 1 ABOUT HERE&gt;</center>

<center>&lt;INSERT FIGURE 2 ABOUT HERE&gt;</center>

### 4.3. Transcription and Coding

Responses were transcribed using standard orthography by authors and a research assistant. In order to ensure accuracy, 10% of the transcriptions—three randomly selected sentences per participant—were spot-checked by one of the authors. When discrepancies were found, all the transcribed sentences for that participant were checked. After transcription and spot-checking, each response was coded separately by two of the researchers, using the codes discussed below. In any case where the codes disagreed, all three authors checked the code. Subsequently, all three authors reviewed the entire data set in order to ensure consistent application of the codes.

Because of the open-ended nature of the task, we aimed to establish a coding system general enough to ensure systematic grouping of patterns but also flexible enough to not unduly mask individual variation. This coding system was developed after examining a subset of data to get a sense of the types of responses. Then this coding was applied to all the data with the procedure discussed above. Codes are summarized in Table 2.

<center>[INSERT TABLE 2 ABOUT HERE]</center>

---

[8] The three characters in the video clips used were *el vagabundo* 'the tramp,' *la acróbata* 'the acrobat,' and *el dueño del circo (el señor del bigote)* 'the owner of the circus (the man with the mustache).' However, participants were encouraged to use whatever description they saw fit if they forgot these lexical items.

Given that the theoretical literature on Spanish information focus emphasizes movement as a strategy, one of the main divisions built into this coding system was between strategies that employ syntactic movement and those that do not. Within the movement category, we have a three-way distinction: movement to final position, fronting, and other movement, which included any sentences with syntactic reordering that did not result in the focus appearing in sentence-initial or sentence-final position.

The "In Situ" code was given to any case of the focus appearing in its canonical position. For subjects, this meant preverbal position,[9] whether or not there was elision of postverbal constituents (which would not serve to put the focus in final position). For objects, we see a distinction between In Situ objects, which appear in their canonical position (before the PP), and cases of Elision, in which the PP is omitted so that the focused object appears sentence-finally. Sentences with clefts or pseudoclefts, regardless of type or word order, were coded as "Cleft."

The category "Other" was reserved for strategies that did not fit the descriptions above, including single-constituent answers with no observable structure—by far the most common answer in this category. Less common were cases where speakers used a different verb from the one in the question, the same basic verb with different argument structure, or different arguments, which made it impossible to compare to other cases in the same condition. Longer descriptive answers without a clear focus on a single constituent were also included. Finally, answers in which

---

[9] We recognize that preverbal subjects in Spanish are not "in situ" in the strictest sense, as they are generally regarded to have moved to Spec of TP from their base-generated position within vP. We adopt this terminology for consistency across conditions and because it makes clear that we take preverbal subjects to have not undergone discourse-motivated movement, which is our main concern.

the participant either did not respond or clearly misunderstood the question were coded as "Misunderstood/No Response" and were not included in the analysis (0.05% of the data).

## 5. Statistical Analyses

Given the categorical nature of our dependent variable, data were analyzed in a series of pairwise comparisons using logistic mixed-effects models implemented with the *lme4* package (Bates, Mächler, Bolker, & Walker, 2015) using the *glmer* function, in the statistical environment R (R Core Team, 2014). We tested the effect of language input type (i.e., monolingual, adult L2 bilingual or heritage speaker) on the strategy used to signal focus while simultaneously accounting for conditional dependencies between data points and individual participant variability. These dependencies were captured in so-called random effects. All models included random by-participant intercepts, random by-participant slopes for all fixed effects, and random by-item intercepts. In order to systematically investigate the influence of language input for each grammatical function (subject vs. object), we treatment-coded different levels of proficiency depending on the comparison we wanted to examine. For instance, when we examined whether there existed differences between the two monolingual groups, Mexican speakers were coded as the reference. In each of the pairwise comparisons we ran, group was included as a fixed effect in the models. In the following section, we always describe the type of comparison we ran before reporting on the results. Finally, we adopt an alpha level of $p < .05$ for statistical significance.

## 6. Results

We report the results by grammatical function, first describing the data overall, then reporting group comparisons, and finally describing the results in detail.

Concerning subject focus marking, we observe that all speakers across language groups pattern quite similarly in the primary strategy they use. Figure 3 provides an illustrative summary of the distribution of responses with respect to two categories: "In-Situ" marking vs. "Not In-Situ" marking.

<INSERT FIGURE 3 ABOUT HERE>

Across all groups, the strategy used in the vast majority of cases is the realization of focus in-situ—the subject occurring in preverbal position. This result holds regardless of the complexity or weight of the lexical subject: even heavier subjects, such as the one in example (6), appear preverbally.[10] [11]

(6) Context: Who put a plate on the table?

*In situ*: [El señor del bigote]$_F$ puso un plato sobre la mesa.

[*The man with the mustache*]$_F$ *put a plate on the table.*

Statistically speaking, we examined the data by collapsing codes over a binary distinction between "In-Situ" or "Not In-Situ"; that is, whether speakers realized subject focus in canonical position or not. Then we concentrated on comparisons between groups. First, we tested whether there was a difference in strategies between the two monolingual groups (Mexicans vs. Chileans). We found no difference; both patterned similarly in the strategy employed for subject focus marking ($\beta$ = -0.3071, *SE* = 0.6546, *p* = 0.64), overwhelmingly choosing in-situ marking (77.1% and 85.7%, respectively). In the two HS groups, there was no difference between the intermediate

---

[10]All examples taken from the data.
[11] We briefly note that these results differ substantially from the strategy used in the corrective filler items, for which participants across groups used a cleft construction at least 63% of the time, thus alleviating the concern that they interpreted informational and corrective cases similarly.

and the advanced speakers ($\boldsymbol{\beta}$ = 1.99, *SE* = 1.54, *p* = 1.62), with each group largely realizing this type of focus in situ (76% advanced, 92% intermediate). Furthermore, late bilinguals chose in-situ marking 66.6% of the time and did not differ from the monolinguals collapsed into one group ($\boldsymbol{\beta}$ = 0.44, *SE* = 0.4, *p* = 0.26), or from the HSs collapsed by proficiency ($\boldsymbol{\beta}$ = -1.005, *SE* = 1.996, *p* = 0.61). Finally, upon comparing the two monolingual groups vs. the bilingual groups (including late bilinguals and advanced and intermediate HSs), we also found no significant difference ($\boldsymbol{\beta}$ = -0.13, *SE* = 0.55, *p* = 0.802), suggesting that in-situ focus marking is the preferred strategy for all the groups, regardless of dominance (Spanish vs. English), early vs. late bilingual status, or monolingual vs. bilingual status.

<INSERT TABLE 3 ABOUT HERE>

Table 3 details the subject focus strategies used by participant group. The second most common strategy speakers resorted to, although less frequently than in-situ realization, was "Clefts", as illustrated in (7a). Table 3 shows that late bilinguals and advanced HSs appear more likely to use clefts and pseudoclefts than the other groups. Intermediate HSs do not use clefts at all; in this regard, they do not pattern with the other bilinguals. Lastly, focus realized via movement to clause-final position (7b) was extremely rare (overall 4%), although not completely absent, which suggests that this strategy is a possibility in these speakers' grammars. However, the low incidence of this particular strategy shows that this option is marked.

    (7)    Context: Who hit the woman?

        a. *Cleft:* Fue [el señor del bigote]$_F$ quien puso el plato sobre la mesa.

        b. *Movement to final position*: Golpeó a la mujer [el señor del bigote]$_F$.

We now turn to the object focus condition, which is illustrated in Figure 4.

<INSERT FIGURE 4 ABOUT HERE>

Again, for the purpose of fitting a series of binomial mixed-effects models, we first collapsed the strategies used for marking object information focus into the same two categories: "In-Situ" vs. "Not In-Situ". Examining the two monolingual groups, we find no difference between the way Mexicans and Chileans realized object narrow focus ($\beta$ = -0.52, $SE$ = 0.42, $p$ = 0.23). Therefore, we collapsed these two groups in further models. Next, we investigated whether late bilinguals differed from monolinguals, and here, too, we found no significant differences ($\beta$ = -0.18, $SE$ = 0.27, $p$ = 0.50). A further comparison was conducted between the two HS groups to examine the effect of proficiency. Here, we find a significant difference: the intermediate HS group used significantly more in-situ focus marking than the advanced HS group ($\beta$ = 1.41, $SE$ = 0.72, $p$ < 0.05). Given this difference, we examined whether there was a difference between the intermediate HS participants and all the other groups. Analyses revealed that intermediate HSs did differ from both monolinguals ($\beta$ = 1.38, $SE$ = 0.61, $p$ < 0.05) and late bilinguals ($\beta$ = -1.047, $SE$ = 0.79, $p$ < 0.05). In contrast, advanced HSs patterned with both monolinguals ($\beta$ = 0.46, $SE$ = 0.45, $p$ = 0.31) and late bilinguals ($\beta$ = -0.08, $SE$ = 0.57, $p$ = 0.883), which suggests that the only relevant factor for the marking of object focus was proficiency level within the HS group. All other participants behave in a similar fashion.

We now examine the distribution of the "Not In-Situ" strategies in greater detail. Table 4 illustrates object focus realizations for all groups.

<INSERT TABLE 4 ABOUT HERE>

Although the preferred strategy overall remains marking focus in-situ as in (8), there was much more variation across groups in object focus marking than in subject focus, with other strategies, including movement, being used more frequently.

(8)  Context:  Who did the man with the mustache hit in the face?

*In situ*:  El señor del bigote golpeo [a la chica]$_F$ en la cara.

*The man with the mustache hit [the girl]$_F$ in the face*.

Within the movement category, the main category was moving the object to clause-final position as in (9a) (18.2% and 14.2% for the Mexican and Chilean groups, respectively). As mentioned previously, this is predicted in the linguistic literature to be the preferred strategy for narrow focus marking.

(9)  Context: Who did the man with the mustache hit in the face?

a. *Movement (Final)*: El señor del bigote golpeo en la cara [a la chica]$_F$.

b. *Elision of post-focal material*: El señor del bigote golpeo [a la chica]$_F$.

In the object focus condition, another strategy that emerged was realizing focus in rightmost position through the elision of post-focal material as in (9b). This strategy allowed speakers to leave focus rightmost without movement. Focus-fronting, where focus is moved to sentence-initial position, was a rare occurrence in this data set, and it was only used by monolinguals from Mexico (6%). The use of clefts was also infrequent and used by exclusively by monolinguals (~ 3% for each group).[12]

---

[12] Here as well, the results for the informational and the corrective condition differ significantly since, in the latter, clefts were used much more frequently (between 12% and 21% of the time) across groups. Again, these patterns suggest that participants were interpreting both focus conditions differently.

The two monolingual groups do not pattern very differently from one another, nor do they pattern much differently from the late bilingual group. Nevertheless, we see a significant difference between the HSs across proficiency levels: intermediate HSs exhibit, once more, less variety than the advanced, relying mostly on in-situ marking to signal object focus (85%), similarly to what they produced in the subject focus condition. Additionally, the advanced group appears to use elision to a greater extent (26.6%), more in line with the monolingual groups.

Because movement to final position was theoretically important, we collapsed the responses under two categories, "moved-final" vs. "others", thus comparing clause-final movement to all other strategies. We conducted pairwise comparisons between groups using a series of binomial mixed-effects models, predicting responses from proficiency level. These comparisons failed to yield significant differences between the monolingual groups ($\beta$ = -0.74, $SE$ = 0.54, $p$ = 0.17), suggesting that these two groups behave similarly with respect to these two strategies: they use as much movement to final position on the one hand, and other strategies on the other. There were also no significant differences between late bilinguals and monolinguals ($\beta$ = 0.49, $SE$ = 0.56, $p$ = 0.37). However, we do find a slight difference between the HSs overall and the monolinguals ($\beta$ = 1.32, $SE$ = 0.65, $p$ = 0.043) suggesting that HSs use a bit more movement to final position than monolinguals do. There was also a difference between the HSs the late bilinguals ($\beta$ = -9.76, $SE$ = 3.15, $p$ = 0.032). When looking at the HSs per proficiency, we find no difference between the intermediate and the advanced ($\beta$ = -0.6 $SE$ = 1.8, $p$ = 0.67).

## 7. Discussion

Our study was designed to investigate how the informational-structure notion of *focus* was realized by four distinct groups of Spanish speakers who acquired Spanish in infancy but had

different levels of access to Spanish input later in life. Our **first research question** asked how speakers realized information focus through a semi-spontaneous paced production task. We were interested in examining whether Spanish speakers followed the expectations outlined in the theoretical literature, which maintains that focus is realized right-most (Bolinger, 1954; Büring & Gutiérrez-Bravo, 2001; Contreras, 1978; Costa, 2001; Domínguez, 2004a, 2004b; Gutiérrez-Bravo, 2002, 2008; Ortega-Santos, 2006; Samek-Lodovici, 2001; Zubizarreta, 1998). By using a task where speakers have considerable latitude in choosing responses, we also aimed to contribute additional evidence to the existent experimental data of focus marking and interpretation in Spanish (Face & D'Imperio, 2005; Gabriel, 2007, 2010; Gupton & Leal Méndez, 2011; Hoot, 2012, 2014, 2016; Leal Méndez & Slabakova, 2011; Muntendam, 2009, 2013).

Our results align with previous quantitative investigations, which have found that rightmost realization is not obligatory. In fact, our results show quite the contrary: Overall, only 9.4% of the questions that triggered information *focus* were answered with strategies that evinced any kind of syntactic movement. Moreover, only 6.4% of the responses showing movement actually conformed to the expectations in the theoretical literature (i.e., rightmost focus), almost all in object focus contexts. In the case of subject information focus, only 5 out of 300 responses (1.7% of the total responses) displayed final *focus* marking (i.e., VOS). This is not to say that rightmost focus is nonexistent (that is, we are not claiming that Spanish is just like, for example, English, disallowing even the possibility of movement). There are examples of sentence-final focus in our sample, but these are quite rare. Although there is some indication from previous investigations that Spanish monolinguals can correctly judge acceptability of rightmost focus in the appropriate contexts when SVO is not an option (see Leal Méndez & Slabakova, 2011), our study shows

evidence that when faced with a more naturalistic production task, speakers rarely produce these word-order arrangements. Even when they do use movement, it is rarely in the predicted direction.

In this respect, our study lends more support to researchers who have called for theories of information structure to include a mechanism that can account for non-rightmost stress as a primary component of focus marking in Spanish (e.g., Hoot, 2014).[13] Instead of opting for movement, results show that speakers overwhelmingly chose to leave focal arguments in-situ (roughly 70% of answers). The results of the present study agree with previous experimental work in challenging accounts such as p-movement (Zubizarreta, 1998) and suggesting that, while information focus in Spanish may *optionally* appear rightmost, it is most often realized in its canonical position: without syntactic movement. Note, however, that without a detailed prosodic analysis, we cannot claim that these speakers are stressing the focus in non-final position, although previous research has found that non-final stress on focal constituents is both accepted and produced in Spanish (Gabriel 2010; Hoot, 2014; Vanrell & Fernández Soriano 2013). This research is necessary in order to know whether the p-movement account holds for our data. Nonetheless, we can claim that an explanation of focus-marking in Spanish that relies on *obligatory* rightmost stress cannot account for the present results, in which the focus is not realized sentence-finally in the majority of cases. Finally, we also would like to reiterate that these results only challenge the p-movement account with regards to elicited production—additional research is needed to find out whether these results would hold with judgments and other online methodologies, such as self-paced reading.

---

[13] For example, one such attempt to capture both the availability of movement and non-final stress (and their optional realization) is Gabriel (2010)'s stochastic Optimality Theoretic model.

Previous experimental work also showed evidence of an asymmetry with respect to focus marking based on the grammatical function of focal constituents (subject vs. object); our results replicate this finding. Although there was a similarity in focus-marking strategies across constituents— speakers showed a clear preference for marking information focus in-situ for both subjects and objects—there are also noteworthy differences. First, with regard to subject focus, the second most employed strategy for all but one of the groups was (pseudo)clefting. These agree with Gabriel (2007, 2010) in that strategies (in-situ, clefts, or movement) are not reserved exclusively for one type of focus (either contrastive or information). Interestingly, although clefts constitute the second most frequent realization of subject information focus, they are virtually nonexistent in the object focus condition. Thus, our data show that subjects lend themselves much more readily to clefting than objects do. Gabriel (2010) finds the same asymmetry in the frequency of use of clefts for subjects (clefts very common) and objects (clefts uncommon) that we report here. These results—which are among the very few production data in the field—lend support to the general picture we present.

A second asymmetry between subjects and objects involved syntactic movement: Using movement of some type to mark focus was much more common for object focus than subject focus, with the most common movement type being the scrambling of non-focal material leftward to produce sentence-final focus, as in p-movement This parallels previous experimental findings (Hoot 2012, 2014, 2016) showing that Spanish speakers accept this discourse-conditioned movement for object focus more readily than for subject focus, strongly preferring that subjects remain in preverbal position. Confirming this finding with production data is important because, to our knowledge, theoretical explanations of focus in Spanish rely on a single mechanism across constituent types. P-movement should apply equally to subjects and objects (or to any other

constituent). In fact, Zubizarreta presents these as two types of p-movement (with subjects and objects) that are explained by the same factors (resolution between the NSR and the FPR). Hence, she proposes that apart from respecting independent syntactic constraints, p-movement should resolve any conflict between the NSR and FPR by scrambling the non-focal material to a higher position so that the focus receives stress from both rules; whether the focus is on a subject or an object should not matter. Yet here we find a clear asymmetry based on syntactic position.

These asymmetries—movement being more readily available for objects, clefting for subjects—may also have implications for debates regarding the status of subjects and the EPP in Spanish.[14] There has long been debate over the position of Spanish pre-verbal subjects (see Ortega-Santos, 2016 for an overview) with some (e.g., Alexiadou & Anagnostopoulou, 1998) proposing that the EPP is not active in Spanish, which does not project Spec,TP and in which pre-verbal subjects appear in a topic position, while others (e.g., Goodall, 2001; Ortega-Santos, 2008, 2016; Villa-García, 2012, 2015) have argued that subjects and topics are separate, with pre-verbal subjects (at least sometimes) hosted in Spec,TP.  Focus movement facts may constitute another source of potential evidence in favor of a view in which Spanish has a subject-specific EPP. Focused subjects in preverbal position are unlikely, as foci, to be in a topic position, and we find no evidence that they undergo a focus fronting operation distinct from pre-verbal subjects in cases when the subject is not in focus (although this cannot be ruled out), so it is plausible that these focused subjects are in Spec,TP. Additionally, many analyses of clefts—the second most common option for subject focus in our data—also put them in that position (e.g., Belletti, 2004). Thus nearly all our data on subjects reveals a preference for movement to Spec,TP—movement that was virtually unaffected by discourse requirements. Although participants also realized most cases of

---

[14] We thank Julio Villa-García for this observation.

object focus in-situ, movement was much more likely for objects than for subjects. This suggests some special requirement on subject position, which could result from the EPP. Although our experiment was not designed to explicitly test the specific position of subjects, the apparent special resistance to movement of the subject may have implications beyond the literature on information structure.

One final implication of our results hinges not on differences between constituents but on the variability observed in the responses across conditions and groups. Although in-situ marking was by far the most common, for no group was it categorical. As Gabriel (2010) has noted, most syntax-information structure interface approaches do not adequately account for the fact that, even when controlling for as many confounding factors as possible, speakers produce a wide variety of structures to realize the same information-structural categories. Ultimately, any theory that intends to account for the full range of phenomena requires a mechanism to explain this variation.

Our **second research question,** which follows directly for our first, concerned group differences. We asked whether the bilingual groups differed from the monolingual groups. Previous work has found the syntax-discourse interface, including information-structural categories like focus, to be the site of significant instability for bilinguals, including heritage speakers (e.g., Montrul & Polinsky, 2011; Sorace, 2011; Tsimpli & Sorace, 2006), yet other recent work has *not* found this to be the case in heritage Spanish (Hoot, 2012, 2016; Leal Méndez et al., 2015; Rothman, 2009). We asked whether the two bilingual groups differed from one another depending on when their input was interrupted, and whether language variety would show differences between the monolingual groups.

In the subject information focus condition, none of the groups differed in the proportion of in-situ focus marking or the amount of movement employed. We observe no differences between

monolinguals and bilinguals overall or in pairwise comparisons with specific bilingual groups, including differences among bilinguals based on language dominance or acquisition history. Instead we find that all these speakers pattern together, regardless of language variety, language contact, or input received during acquisition. These results corroborate previous experimental work on Spanish/English bilinguals, yet the lack of difference is noteworthy in light of previous work with other language pairs. Contrary to the expected vulnerability at the syntax-discourse interface, we find that bilinguals—even the English-dominant HS groups—realize subject focus, in statistical terms, similarly to monolinguals. This result alone could potentially be problematic for proposals such as the Interface Hypothesis (Sorace, 2011) that place the burden of differences at the syntax-discourse interface. Our paced task uses a methodology that should emphasize any differences because it places a burden on processing. Yet even with this proviso, we find no differences.

In the object focus condition, we again find few differences: the monolingual groups do not differ from advanced HSs or the late bilingual group; the latter two do not differ from each other. The intermediate HS group, however, differs significantly from every other group regarding the proportion of in-situ object focus marking: intermediate HSs used significantly more in-situ marking than any other group. It is worth analyzing these group comparisons more closely to tease apart some of the factors that may drive differences. It is noteworthy that the only group difference is within the HS group by proficiency rather than acquisition histories. This points to certain factors playing a more important role than others.

We divided the HSs into two groups based on proficiency scores, but we recognize that proficiency is a broad notion that captures individual differences in a given speaker's competence and may stem from many other factors, including exposure. It is irreducible to a simple score.

Notably, both HSs groups had strikingly similar linguistic histories. The same percentage of each group was born in the U.S.; they were all schooled in English, with both groups reporting roughly the same amount of formal Spanish study. Thus the difference cannot be attributed to differences in formal education or access to different registers of Spanish. Both groups rated their English proficiency higher than their Spanish proficiency, and roughly the same number from each group reported being English-dominant. Language dominance is cannot fully account for their different results, either.

Where the two groups differ is in reported language use. Table 1 shows that the advanced HS group reported using Spanish much more with both parents, but specifically with their mothers, with whom nearly 90% reported using mainly Spanish (compared to 31% of the intermediate group). They also reported greater use of Spanish with other relatives and at religious services. One notable difference was the percentage who reported using mainly Spanish at home: 83% of advanced HSs but only 20% of intermediate HSs. The HSs also differed in their reported English use. Although neither HS group used mostly Spanish with friends, siblings, partners, or co-workers, the intermediate group was more likely to report using mainly English with these interlocutors, while the advanced group reported using both languages. Overall, then, reported language use appears to be the main factor that distinguishes between the two proficiency groups.

To the extent that reported language use correlates with input, it appears likely that the advanced HS group has received—and continues to receive—more input in Spanish than the intermediate group, at least at home.[15] However, we must emphasize that despite this difference, both groups share the typical profile of HSs in the U.S.: English-dominant bilinguals who

---

[15] We are aware that a more precise calculation would be to measure the input that the speakers received throughout childhood, either through longitudinal data or through a very detailed linguistic history that would take into consideration input shifts throughout their lifetime.

experienced a significant shift in the input they received at a young age. It thus seems that although these two groups have similar acquisition histories, there is some threshold of input quantity below, which this property may develop differently. It could be that such divergence results from (English) influence, although if transfer is dependent on language dominance (Kupisch, 2012), we would also expect to see transfer for the advanced HS group, who are also English-dominant. Alternatively, it could be that decreased input leads to lower activation of linguistic features pertaining to discourse-related movement (Putnam & Sánchez, 2013), which could explain why we see a difference based crucially on language use rather than other extralinguistic factors like the age at which a shift in the input takes place.

The late bilingual group experienced a similar shift in input (increase in English, concurrent decrease in Spanish), but at a much later age, having gone through their secondary schooling mainly in Spanish. The fact that the advanced HSs and the adult bilinguals resemble each other is significant in light of the input these groups have received: the Spanish input for the HSs was interrupted at a young age and was restricted in register and context, whereas the Spanish-dominant group had an acquisition pattern virtually identical to what the monolingual groups received; the difference is that these speakers were L2 English learners. In adulthood, these speakers are fully bilingual and receive much English input. The HSs are dominant in English, whereas participants in the adult L2 bilingual group report being dominant in Spanish (despite living in an English-speaking country). The fact that these groups pattern together could indicate that, with respect to this property, proficiency/experience could play a greater role than either language dominance or time of the shift in input.

Crucially, neither the advanced HSs nor the late bilinguals differ from the monolinguals as a collapsed group. One implication of this is that the observed effects for the intermediate HSs

cannot be attributed to the effects of bilingualism itself because both these groups are also bilingual yet pattern with the monolinguals. Instead, some bilingual grammars appear unaffected by reduced input, either because this reduction came later in life (late bilinguals) or because the reduction was not too severe, with Spanish maintained more in the home (advanced HSs). This supports our decision, following Leal Méndez et al. (2015), to treat all these participant groups as native speakers with different acquisition histories, since they appear to have grammars resembling those of other monolinguals. Another implication of the lack of difference between the late bilinguals and the monolinguals is that, as with the subject focus results, we find no evidence of L1 attrition in the adult bilingual group, which goes contrary to the expectation of special vulnerability to attrition at the syntax/discourse interface. In fact, although one group (intermediate HSs) differs from the others, one of the most notable findings overall is the lack of difference between groups, both for subjects and objects. This suggests, in line with previous work (e.g., Hoot 2016; Leal Méndez et al., 2015), that the notion of interface vulnerability and what exactly the interfaces include may need revision.

Regarding language-variety differences, the two groups of monolinguals resemble each other considerably. Few previous studies examine focus realization in more than one Spanish dialect, yet when only one variety is included as a control group, the possibility exists that what appear to be differences due to bilingualism or contact with English could result from dialect differences. This can be particularly problematic when it comes to HSs, whose performance may be labeled non-target or due to influence from English when in fact it simply differs from the dialect selected for comparison. Our study avoids that issue and provides new evidence of focus realization in monolingual varieties of Spanish, including one that has been previously studied (Mexican) and one that has not (Chilean).

Finally, we should consider the potential limitations of our study. Although the structure of our production task affords us considerable control over the variables under study, such a study could potentially differ from spontaneous production. In this regard, the value of the data is that it supports previous experimental results that have been obtained with other methods. An additional limitation regards the fact that the tokens are not entirely symmetrical—in other words, the participants had considerable freedom when choosing a particular combination of lexical items. Lastly, our conclusions must necessarily be modulated because we have not offered an intonational analysis of responses. Such an analysis would potentially offer crucial insight with regard to focus marking. For this reason, we plan to focus on this in a future study.

## 8. Conclusion

The present study contributes new empirical evidence to the study of bilingual grammatical competence and to the literature on focus in Spanish. It fills a gap in previous work by using a paced production task, and the findings support previous experimental work while challenging claims in the theoretical literature. Results show that speakers of all groups prefer to mark focal constituents in their canonical position rather than employing syntactic movement, although we also find some differences in the strategies used to mark focus depending on the position of the focal constituent (subject vs. object). On the role of input in bilingual grammatical competence, which was operationalized by our division of participants into groups, we find limited inter-group differences, contrary to expectations of special vulnerability for bilinguals at the syntax/discourse interface. The only difference observed (between the intermediate HS group and all the other groups, only on object focus marking) seems attributable to input as represented by self-reported language use but not to the timing of input interruptions, language dominance, or other factors in

speakers' acquisition histories. Instead, despite the different input they have received, we observe no differences among late bilinguals, advanced HSs, and monolingual speakers of two different varieties, which is relevant for understanding the factors that affect the development of bilingual grammars.

## References

Ågren, M., Granfeldt, J., & Thomas, A. (2014). Combined effects of age of onset and input on the development of different grammatical structures. *Linguistic Approaches to Bilingualism*, *4*(4), 462–493. http://doi.org/10.1075/lab.4.4.03agr

Alexiadou, A., & Anagnostopoulou, E. (1998). Parametrizing Agr: Word Order, V-Movement and Epp-Checking. *Natural Language & Linguistic Theory*, *16*(3), 491–539. http://doi.org/10.1023/A:1006090432389

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting Linear Mixed-Effects Models Using lme4. *Journal of Statistical Software*, *67*(1). http://doi.org/10.18637/jss.v067.i01

Belletti, A. (Ed.). (2004). *Structures and beyond*. Oxford: Oxford Univ. Press.

Benmamoun, E., Montrul, S., & Polinsky, M. (2013). Heritage languages and their speakers: Opportunities and challenges for linguistics. *Theoretical Linguistics*, *39*(3/4), 129–181.

Bolinger, D. (1954). Meaningful word order in Spanish. *Boletín de Filología*, *8*, 45–56.

Büring, D. (2009). Towards a typology of focus realization. In M. Zimmermann & C. Féry (Eds.), *Information Structure: Theoretical, Typological, and Experimental Perspectives* (pp. 177–205). Oxford: Oxford University Press.

Büring, D., & Gutiérrez-Bravo, R. (2001). Focus-related constituent order variation without the NSR: A prosody-based crosslinguistic analysis. *Syntax at Santa Cruz*, *3*, 41–58.

Camacho, J. (2006). In situ focus in Caribbean Spanish: Towards a unified account of focus. In Nuria Sagarra & Almeida Jacqueline Toribio (eds.), *Selected proceedings of the 9th*

*Hispanic Linguistics Symposium*, (pp. 1-23). Somerville, MA: Cascadilla Proceedings Project.

Casielles-Suárez, E. (2004). *The syntax-information structure interface: Evidence from Spanish and English*. New York: Routledge.

Contreras, H. (1978). *El orden de palabras en español*. Madrid: Cátedra.

Costa, J. (2001). The emergence of unmarked word order. In G. Legendre, J. B. Grimshaw, & S. Vikner (Eds.), *Optimality-Theoretic syntax* (pp. 171–204). Cambridge, MA: MIT Press.

Domínguez, L. (2004a). The effects of phonological cues on the syntax of focus constructions in Spanish. In R. Bok-Bennema, B. Hollebrandse, B. Kampers-Manhe, & P. Sleeman (Eds.), *Romance Languages and Linguistic Theory 2002: Selected Papers from "Going Romance," Groningen, 28-30 November 2002* (pp. 69–81). Amsterdam/Philadelphia: John Benjamins.

Domínguez, L. (2004b). *The syntax and prosody of focus in Spanish* (Ph.D. dissertation). Boston University.

Domínguez, L. (2013). *Understanding Interfaces: Second language acquisition and first language attrition of Spanish subject realization and word order variation*. Amsterdam: John Benjamins Publishing.

É. Kiss, K. (1998). Identificational focus versus information focus. *Language*, *74*(2), 245–273.

Face, T. L., & D'Imperio, M. (2005). Reconsidering a Focal Typology: Evidence from Spanish and Italian. *Italian Journal of Linguistics*, *17*(2), 271–289.

Flores, C. (2010). The effect of age on language attrition: Evidence from bilingual returnees. *Bilingualism: Language and Cognition*, *13*, 533-546.

Gabriel, C. (2007). *Fokus im Spannungsfeld von Phonologie und Syntax. Eine Studie zum Spanischen*. Frankfurt: Vervuert.

Gabriel, C. (2010). On focus, prosody, and word order in Argentinean Spanish: A Minimalist OT account. *Revista Virtual de Estudos Da Linguagem*, *4*, 183–222.

Gathercole, V. C. M., & Thomas, E. M. (2005). Minority language survival: Input factors influencing the acquisition ofWelsh. In J. Cohen, K. T. McAlister, K. Rolstad, & J. MacSwan (Eds.), *ISB4: Proceedings of the 4th International Symposium on Bilingualism* (pp. 852–874). Somerville, MA: Cascadilla Press.

Goodall, G. (2001). The EPP in Spanish. In W. Davies & S. Dubinsky (Eds.), *Objects and Other Subjects*. Dordrecht: Kluwer Academic Publishers.

Gussenhoven, C. (2007). Types of focus in English. In C. Lee, M. Gordon, & D. Büring (Eds.), *Topic and Focus: Cross-Linguistic Perspectives on Meaning and Intonation* (pp. 83–100). Dordrecht: Springer.

Gupton, T., & Leal Méndez, T. (2013). Experimental methodologies: Two case studies investigating the syntax-discourse interface. *Studies in Hispanic & Lusophone Linguistics*, *6*(1), 139–164.

Gutiérrez-Bravo, R. (2002). *Structural markedness and syntactic structure: A study of word order and the left periphery in Mexican Spanish* (Ph.D. dissertation). University of California - Santa Cruz.

Gutiérrez-Bravo, R. (2008). La identificación de los tópicos y los focos. *Nueva Revista de Filología Hispánica*, 363–401.

Hart, B., & Risley, T. R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore: P.H. Brookes.

Hoot, B. (2012). *Presentational focus in heritage and monolingual Spanish* (Ph.D. dissertation). University of Illinois at Chicago.

Hoot, B. (2014). Narrow presentational focus in Mexican Spanish: Experimental evidence. *Probus*. http://doi.org/10.1515/probus-2014-0004

Hoot, B. (2016). Narrow presentational focus in heritage Spanish and the syntax-discourse interface. *Linguistic Approaches to Bilingualism*. http://doi.org/10.1075/lab.14021.hoo

Hulk, A., & Müller, N. (2000). Bilingual first language acquisition at the interface between syntax and pragmatics. *Bilingualism: Language and Cognition, 3*(3), 227–244.

Huttenlocher, J., Vasilyeva, M., Cymerman, E., & Levine, S. (2002). Language input and child syntax. *Cognitive Psychology*, *45*(3), 337–374. http://doi.org/10.1016/S0010-0285(02)00500-5

Hyltenstam, K., & Abrahamsson, N. (2003). Maturational Constraints in SLA. In C. J. Doughty & M. H. Long (Eds.), *The Handbook of Second Language Acquisition* (pp. 538–588). Malden, MA: Blackwell Publishing Ltd.

Kadmon, N. (2001). *Formal Pragmatics: Semantics, Pragmatics, Presupposition, and Focus*. Malden, MA ; Oxford: Blackwell.

Krifka, M. (2007). Basic notions of information structure. *Interdisciplinary Studies on Information Structure*, *6*, 16–55.

Kupisch, T. (2012). Specific and generic subjects in the Italian of German–Italian simultaneous bilinguals and L2 learners. *Bilingualism: Language and Cognition*, *15*(04), 736–756. http://doi.org/10.1017/S1366728911000691

Leal Méndez, T., Rothman, J., & Slabakova, R. (2015). Discourse-sensitive clitic-doubled dislocations in heritage Spanish. *Lingua*, *155*, 85–97. http://doi.org/10.1016/j.lingua.2014.01.002

Leal Méndez, T., & Slabakova, R. (2011). Pragmatic Consequences of P-movement and Focus Fronting in L2 Spanish: Unraveling the Syntax-Discourse Interface. In J. Herschensohn & D. Tanner (Eds.), *Proceedings of the 11th Generative Approaches to Second Language Acquisition Conference (GASLA 2011)* (pp. 63–75). Somerville, MA: Cascadilla Proceedings Project. Retrieved from http://www.lingref.com/cpp/gasla/11/paper2546.pdf

Meisel, J. M. (2009). Second Language Acquisition in Early Childhood. *Zeitschrift Für Sprachwissenschaft*, *28*(1), 5–34. http://doi.org/10.1515/ZFSW.2009.002

Montrul, S. (2004). Subject and object expression in Spanish heritage speakers: A case of morphosyntactic convergence. *Bilingualism: Language and Cognition*, *7*(2), 125–142. http://doi.org/10.1017/S1366728904001464

Montrul, S. (2008). *Incomplete Acquisition in Bilingualism: Re-examining the Age Factor* (Vol. 39). Amsterdam: John Benjamins Publishing Company.

Montrul, S. (2009). Knowledge of tense-aspect and mood in Spanish heritage speakers. *International Journal of Bilingualism*, *13*(2), 239–269. http://doi.org/10.1177/1367006909339816

Montrul, S. (2010). How similar are adult second language learners and Spanish heritage speakers? Spanish clitics and word order. *Applied Psycholinguistics*, *31*(01), 167–207. http://doi.org/10.1017/S014271640999021X

Montrul, S., Foote, R., & Perpiñán, S. (2008). Gender Agreement in Adult Second Language Learners and Spanish Heritage Speakers: The Effects of Age and Context of Acquisition. *Language Learning*, *58*(3), 503–553. http://doi.org/10.1111/j.1467-9922.2008.00449.x

Montrul, S., & Polinsky, M. (2011). Why not heritage speakers? *Linguistic Approaches to Bilingualism*, *1*(1), 58–62. http://doi.org/10.1075/lab.1.1.07mon

Muntendam, A. (2009). *Linguistic transfer in Andean Spanish: Syntax or pragmatics?* (Ph.D. dissertation). University of Illinois at Urbana-Champaign.

Muntendam, A. (2013). On the nature of cross-linguistic transfer: A case study of Andean Spanish. *Bilingualism: Language and Cognition*, *16*(01), 111–131. http://doi.org/10.1017/S1366728912000247

Olarrea, A. (2012). Word order and information structure. In J. I. Hualde, A. Olarrea, & E. O'Rourke (Eds.), *The handbook of Hispanic linguistics* (pp. 603–628). West Sussex: Wiley-Blackwell.

Ortega-Santos, I. (2006). On new information focus, sentence stress assignment conditions and the copy theory: a Spanish conspiracy. *University of Maryland Working Papers in Linguistics*, *14*, 188–212.

Ortega-Santos, I. (2008). *Projecting subjects in Spanish and English* (Ph.D. dissertation). University of Maryland.

Ortega-Santos, I. (2016). *Focus-related operations at the right edge in Spanish: Subjects and Ellipsis*. Amsterdam: John Benhamins

Paradis, J. (2011). The impact of Input factors on bilingual development: Quantity versus quality. *Linguistic Approaches to Bilingualism*, *1*(1), 67–70. http://doi.org/10.1075/lab.1.1.09par

Pascual y Cabo, D. (2013). *Agreement reflexes of emerging optionality in heritage speaker Spanish* (Ph.D. dissertation). University of Florida, Gainesville, FL.

Pascual y Cabo, D., & Rothman, J. (2012). The (Il)Logical Problem of Heritage Speaker Bilingualism and Incomplete Acquisition. *Applied Linguistics*, *33*(4), 450–455. http://doi.org/10.1093/applin/ams037

Pires, A., & Rothman, J. (2009). Disentangling sources of incomplete acquisition: An explanation for competence divergence across heritage grammars. *International Journal of Bilingualism*, *13*(2), 211–238. http://doi.org/10.1177/1367006909339806

Polinsky, M. (2006). Incomplete acquisition: American Russian. *Journal of Slavic Linguistics*, *14*(2), 191–262.

Polinsky, M. (2011). *Heritage Languages* (Oxford Bibliographies, Linguistics). Oxford University Press. Retrieved from http://www.oxfordbibliographies.com/display/id/obo-9780199772810-0067

Putnam, M. T., & Sánchez, L. (2013). What's so incomplete about incomplete acquisition?: A prolegomenon to modeling heritage language grammars. *Linguistic Approaches to Bilingualism*, *3*(4), 478–508. http://doi.org/10.1075/lab.3.4.04put

R Core Team. (2014). *R: A language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing. Retrieved from http://www.R-project.org/

Rooth, M. (1992). A theory of focus interpretation. *Natural Language Semantics*, *1*(1), 75–116.

Rothman, J. (2007). Heritage speaker competence differences, language change, and input type: Inflected infinitives in Heritage Brazilian Portuguese. *International Journal of Bilingualism*, *11*(4), 359–389. http://doi.org/10.1177/13670069070110040201

Rothman, J. (2009). Pragmatic deficits with syntactic consequences?: L2 pronominal subjects and the syntax–pragmatics interface. *Journal of Pragmatics*, *41*(5), 951–973. http://doi.org/10.1016/j.pragma.2008.07.007

Samek-Lodovici, V. (2001). Crosslinguistic typologies in Optimality Theory. In G. Legendre, J. B. Grimshaw, & S. Vikner (Eds.), *Optimality-Theoretic syntax* (pp. 315–354). Cambridge, MA: MIT Press.

Silva-Corvalán, C. (1994). *Language contact and change: Spanish in Los Angeles*. Oxford: Clarendon.

Sorace, A. (2011). Pinning down the concept of "interface" in bilingualism. *Linguistic Approaches to Bilingualism*, *1*(1), 1–33. http://doi.org/10.1075/lab.1.1.01sor

Toribio, A. J. (2001). Accessing bilingual code-switching competence. *International Journal of Bilingualism*, *5*(4), 403–436. http://doi.org/10.1177/13670069010050040201

Tsimpli, I. M., & Sorace, A. (2006). Differentiating interfaces: L2 performance in syntax-semantics and syntax-discourse phenomena. In *Proceedings of the 30th annual Boston University Conference on Language Development (BUCLD 30)* (pp. 653–664). Somerville, MA: Cascadilla Press.

Unsworth, S., Argyri, F., Cornips, L., Hulk, A., Sorace, A., & Tsimpli, I. (2014). The role of age of onset and input in early child bilingualism in Greek and Dutch. *Applied Psycholinguistics*, *35*(04), 765–805. http://doi.org/10.1017/S0142716412000574

Valdés, G. (2001). Heritage language students: Profiles and possibilities. In J. Kreeft Peyton, D. A. Ranard, & S. McGinnis (Eds.), *Heritage languages in America: Preserving a national resource* (pp. 37–77). McHenry, IL: Center for Applied Linguistics.

Valdés, G. (2005). Bilingualism, Heritage Language Learners, and SLA Research: Opportunities Lost or Seized? *Modern Language Journal*, *89*(3), 410–426. http://doi.org/10.1111/j.1540-4781.2005.00314.x

Vallduví, E., & Engdahl, E. (1996). The linguistic realization of information packaging. *Linguistics*, *34*(3), 459–519.

Vanrell, M. del M., & Fernández Soriano, O. (2013). Variation at the interfaces in Ibero-Romance: Catalan and Spanish prosody and word order. *Catalan Journal of Linguistics*, *12*, 253–282.

Villa-García, J. (2012). Spanish subjects can be subjects: Acquisitional and empirical evidence. *Iberia*, *4*(2), 124–169.

Villa-García, J. (2015). *The syntax of multiple-que sentences in Spanish: along the left periphery*. Amsterdam ; Philadelphia: John Benjamins Publishing Company.

White, L., Valenzuela, E., Kozlowska–Macgregor, M., & Leung, Y.-K. I. (2004). Gender and number agreement in nonnative Spanish. *Applied Psycholinguistics*, *25*(01), 105–133. http://doi.org/10.1017/S0142716404001067

Yeni-Komshian, G. H., Flege, J. E., & Liu, S. (2000). Pronunciation proficiency in the first and second languages of Korean–English bilinguals. *Bilingualism: Language and Cognition*, *3*(02), 131–149.

Zubizarreta, M. L. (1998). *Prosody, focus, and word order*. Cambridge, MA: MIT Press.

Table 1. *Self-reported language use by interlocutor and context, bilingual groups*

| | Intermediate HSs | | | Advanced HSs | | | Late Bilinguals | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Spanish | English | Both | Spanish | English | Both | Spanish | English | Both | Other* |
| By Interlocutor | | | | | | | | | | |
| Father | 56% | 25% | 19% | 76% | 6% | 18% | 86% | 0% | 0% | 14% |
| Mother | 31% | 19% | 50% | 89% | 0% | 11% | 93% | 0% | 0% | 7% |
| Siblings | 0% | 62% | 38% | 14% | 45% | 41% | 83% | 6% | 11% | 0% |
| Friends | 0% | 69% | 31% | 0% | 33% | 67% | 14% | 0% | 57% | 29% |
| Partner | 0% | 50% | 50% | 14% | 43% | 43% | 0% | 56% | 11% | 33% |
| Co-workers | 0% | 55% | 45% | 7% | 40% | 53% | 14% | 0% | 86% | 0% |
| Relatives | 38% | 6% | 56% | 61% | 0% | 39% | 77% | 0% | 15% | 7% |
| By context | | | | | | | | | | |
| Home | 20% | 33% | 47% | 83% | 0% | 17% | 36% | 50% | 7% | 7% |
| School | 0% | 80% | 20% | 6% | 67% | 28% | 8% | 33% | 58% | 0% |
| Work | 0% | 67% | 33% | 6% | 44% | 50% | 14% | 36% | 50% | 0% |
| Religious services | 31% | 62% | 8% | 85% | 8% | 8% | 50%** | 50%** | 0% | 0% |
| Free time | 7% | 71% | 21% | 18% | 47% | 35% | 15% | 8% | 77% | 0% |

* Includes reports of any other language, alone or in combination with Spanish and/or English, including Basque, Galician, French, Catalan, Italian, and Tamil.
** All but two subjects in this group left this question blank or reported that it did not apply to them. Of the two who answered, one chose English and one chose Spanish.

Table 2. *Coding system for analysis.*

| Description | Example (focus element indicated in brackets) |
|---|---|
| **In-Situ** | |
| Focus and given elements realized in their canonical order (SVOPP); no evidence of movement. | [La acróbata]$_F$ montó el caballo en el circo. *[The acrobat]$_F$ rode the horse in the circus.* El señor del bigote golpeó [a la mujer]$_F$ en el rostro. *The man with the mustache hit [the woman]$_F$ in the face.* |
| **Elision** (object focus condition only) | |
| Focus realized in-situ but given PP adjunct not realized; thus, focus appears rightmost without evidence of movement. | La acróbata del circo montó [un caballo]$_F$. (adjunct not realized) *The acrobat of the circus rode [a horse]$_F$.* |
| **Movement:** Fronted | |
| The element in focus is fronted, rather than in canonical position. | [A la chica]$_F$ golpeó el señor del bigote. *[The girl]$_F$ the man with the mustache hit.* |
| **Movement:** .Final | |
| Focus element realized in sentence final position rather than in canonical position. | El vagabundo tiró al piso [una pila de platos]$_F$. *The tramp threw to the floor [a stack of plates]$_F$.* |
| **Movement:** .Other | |
| Focus and given elements are not realized in their canonical order but the focus element is neither fronted nor placed in final position. | Montó [el caballo]$_F$ la acróbata en el circo. *Rode [the horse]$_F$ the acrobat in the circus.* El señor del bigote golpeó en la cara [a la chica]$_F$ en frente del vagabundo. *The man with the mustache hit in the face [the girl] $_F$ in front of the tramp.* |
| **Cleft** | |
| Focus is realized through a cleft or pseudocleft. | [El tipo del bigote]$_F$ fue el que golpeó a la mujer en la cara. *[The man with the mustache] $_F$ was who hit the woman in the face.* |
| **Other** | |
| No category above describes the pattern. This category included single-constituent answers, changes to the argument structure, and longer descriptive sentences. | *Question: Who rode the horse in the circus?* [La acróbata]$_F$. *[The acrobat]$_F$.* *Question: What did the tramp throw on the ground?* |

[Los platos]F cayeron al piso cuando el vagabundo fue correteado por un caballo. *[The plates]F fell on the ground when the tramp was chased by a horse.*

**No response / Misunderstood**

Subjects did not provide an answer or clearly misunderstood the question or situation (did not realize the focus on the correct element or did not known how to respond)

[El dueño]F montó al caballo en el circo.
*The owner rode the horse in the circus. (in fact, it was the acrobat)*
No sé. / No recuerdo
*I don't know./ I don't remember.*

Table 3. *Percentages and raw numbers of information subject focus realization per group*

|  | Monolinguals | | | Bilinguals | |
| --- | --- | --- | --- | --- | --- |
|  | Mexicans | Chileans | Late | HS-Int. | HS-Adv. |
| In-Situ (SVO) | 77.1% (27) | 85.7% (30) | 66.6% (18) | 92% (23) | 76% (22) |
| Movement Final | 2.9% (1) | 2.9% (1) | 3.8% (1) | 0% | 0 |
| Clefting | 11.4% (4) | 11.4% (4) | 29.6% (8) | 0 | 24% (7) |
| Other | 8.6% (3) | 0 | 0 | 8% (2) | 0 |

Table 4. *Percentages and raw numbers of information object focus realization per group*

|  | Monolinguals | | | Bilinguals | |
| --- | --- | --- | --- | --- | --- |
|  | Mexicans | Chileans | Late | HS-Int. | HS-Adv. |
| In Situ (SVO) | 42.4% (14) | 60% (21) | 61% (14) | 85% (17) | 63.5% (19) |
| Movement Final (EF) | 18.2% (6) | 14.2% (5) | 26% (6) | 3.7% (1) | 6.6% (2) |
| Movement Fronted (EFR) | 6% (2) | 0 | 0 | 0 | 0 |
| Movement Other (EO) | 0 | 0 | 0 | 7.6% (2) | 0 |
| Clefting | 3% (1) | 2.9% (1) | 0 | 0 | 0 |
| Elision (IE) | 15.2% (5) | 20% (7) | 13% (3) | 3.7% (1) | 26.6% (8) |
| Other | 15.2% (5) | 2.9% (1) | 0 | 0 | 3.3% (1) |