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The Development of Subject Position in Dutch-Dominant Heritage Speakers of Spanish: From Age 9 to Adulthood

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Abstract: This exploratory study investigates the knowledge of word order in intransitive sentences by heritage speakers of Spanish of different age groups: 9-year-olds, 13-year-olds and adults. In doing so, we aim to fill a gap in the heritage language literature, which, to date, has mainly focused on adult heritage speakers and preschool bilingual children. The results from a judgment task reveal that child- and adolescent heritage speakers do not entirely resemble monolingual age-matched children in the acquisition of subjects in Spanish, nor do they assimilate adult heritage speakers. The data suggest that several different processes can occur simultaneously in the acquisition of word order in heritage speakers: monolingual-like acquisition, delayed acquisition, and attrition. An analysis of the influence of extraneous variables suggests that most of these effects are likely to be the consequence of quantitatively reduced input in the heritage language and increased input in the majority language.

Keywords: child heritage speakers; heritage language acquisition; Spanish; Dutch; word order; subject position; L1 attrition; input quantity

1. Introduction

In past decades, an abundance of research has demonstrated that heritage grammars often diverge from the baseline for a large variety of linguistic phenomena (e.g., Benmamoun et al. 2013). What is less clear, currently, is exactly how these grammars come to be the way they are. Several explanations, or scenario's (Polinsky 2018), have been proposed in the literature, which are not mutually exclusive. First of all, heritage speakers differ from monolinguals in terms of the amount of exposure and use of the heritage language, especially from school age onwards. This reduced exposure and use may either prevent certain structures from being developed completely in a monolingual-like manner (Montrul 2008)[1], or lead to the attrition or reanalysis of structures that were already in place by age 3 or 4 (e.g., Polinsky 2011). Second, it may also be the case that the input received by heritage speakers is not only quantitatively, but also, qualitatively different from the input monolingual speakers are exposed to. For instance, heritage speakers' parents, who are by far their most important source of input, are typically long-term immigrants and may themselves suffer from attrition, due to reduced

[1] This scenario has sometimes been labeled "incomplete acquisition" (e.g., Montrul 2008) or "acquisition without mastery" (Montrul 2016).

exposure and use of their first language and intensive contact with a second language (Montrul and Sánchez-Walker 2013). Moreover, certain constructions are only acquired through formal education and/or exposure to formal registers, to which heritage speakers generally have very little to no access (Pires and Rothman 2009).

In order to shed more light on the various factors that may come to shape heritage speakers' grammars, recent papers (e.g., Polinsky 2011; Montrul 2018) have stressed the need to look at child heritage speakers. The present study intends to fill this gap in the literature by focusing on heritage speakers of around age 9 and 13, an age range in which environmental and input-related circumstances are likely to have important effects on the development of the heritage language (Bayram et al. 2017). The children were tested on their knowledge of subject position in Spanish and the various linguistic factors that constrain it. The collected data are, moreover, juxtaposed against previously collected data on the same topic from a group of adult heritage speakers, to explore which changes occur in the development of the heritage language after age 13.

The heritage speakers are compared to age-matched monolingual groups to answer the question if and how they diverge from their respective baselines. In addition to this, they are compared to one another at the individual level. Correlational analyses are carried out in order to examine to what degree extraneous variables related to input, use, attitudes, etc. can account for the variation observed between individual speakers.

The next section summarizes previous research on child heritage speakers, focusing in particular on the few studies that have been performed with older children. Sections 3 and 4 contain a description of the constraints on word order in Spanish and Dutch, followed by a discussion of previous research regarding acquisition of this phenomenon in heritage and monolingual children in Section 5. In Section 6, the research questions are formulated and Section 7 presents the methodology. Section 8 reports the statistical analyses and the results, which are discussed in light of the theoretical background in Section 9. Section 10 concludes the paper with an outline of the relevant findings and suggestions for future research.

2. Previous Research on Child Heritage Speakers

Interest in the linguistic competence and performance of child heritage speakers is not new, but the population has been labeled differently, namely as early/child bilinguals. Since the 1980s, a large number of corpus studies have been carried out following the development of pre-school bilingual children; typically simultaneous bilinguals in professional families in Europe (e.g., Meisel 2001; De Houwer 1995; Müller and Hulk 2001) and Canada (e.g., Genesee 1989), many of which can and should be considered child heritage speakers (Kupisch and Rothman 2018). The majority of this body of research focuses on the similarities found between preschool bilingual children and monolingual children (e.g., Meisel 2004), but cross-linguistic influence in early bilinguals has also been attested (Müller and Hulk 2001; Yip and Matthews 2000). While Meisel (2004) does not deny the existence of quantitative differences with monolingual children, such as accelerations, delays or an increase or decrease in the frequency of certain constructions, he maintains that these differences still fall within normal ranges, and that "[. . .] the effects are, at best, temporary and do not affect the nature of the ultimately attained competence" (p. 30). However, in the absence of data on bilingual children past early childhood, this is no more than an assumption. Indeed, the many divergences reported for adult heritage speakers indicate that apparently a lot can still happen in the seemingly monolingual-like development of the heritage language after age 4. Whereas both younger and older heritage speakers are well researched, the age span in the middle is remarkably understudied (but see e.g., Argyri and Sorace 2007; Sorace and Serratrice 2009). Especially rare are those studies that track the development of school-age heritage language over time. The existing literature in this age range seems to indicate that after age 4, the heritage language tends to undergo attrition or reanalysis and/or fails to develop similarly to monolingual acquisition. This is attested in longitudinal studies (Merino 1983; Anderson 1999; Austin et al. 2013; Silva-Corvalán 2014, 2018) as well as cross-sectional studies

(Sánchez-Sadek et al. 1975; Polinsky 2011; Cuza and Pérez-Tattam 2016)[2]. Even fewer studies have looked at children beyond the age of 11. Two exceptions are Flores and Barbosa (2014) and Flores et al. (2017), who demonstrate that, while acquisition of clitic placement and mood in heritage European Portuguese is delayed, the structures are eventually acquired (barring quantitative differences).

While attrition and incomplete acquisition in heritage speakers are oftentimes claimed to be caused by a reduced input, recent studies (e.g., Montrul and Sánchez-Walker 2013; Montrul 2018), have attested divergence for some phenomena in first-generation immigrants, pointing towards a possible role for qualitative differences in the input these children receive as well.

Summing up, the available evidence suggests that school-age child heritage speakers diverge from their age-matched peers. The literature contains reports of attrition, arrested development, delayed acquisition and qualitative input effects, suggesting that all may play a role in heritage language development, possibly depending on the specific phenomenon in question and the context of acquisition.[3] The phenomenon of interest in the present study is described in detail in the next section.

3. Word Order in Spanish

The default word order in Spanish is SVO (subject–verb–object), but postverbal subjects are also allowed and are in fact quite frequent. Their felicity depends on the specific linguistic context. In this paper, we discuss three linguistic factors that affect word order with intransitive verbs in Spanish. The first factor is verb type. We distinguish between unergative predicates, like *saltar* ('to jump'), and unaccusative predicates, such as *llegar* ('to arrive'). With unergative verbs, the subject is base-generated in [Spec,VP/vP] and moves to [Spec,IP], resulting in SV (subject–verb) word order, as exemplified in (1). With unaccusative predicates, on the other hand, the subject is base-generated in object position within VP/vP and stays there (e.g., Perlmutter 1978, Chomsky 1995), as illustrated in (2).

1. $_{CP}$ $_{IP}$ [$_{DP}$ *El niño*]$_{I}$ [$_{VP/vP}$ t$_{i}$ *saltó*]]. (unergative)
   the boy jump.PRET.3SG
   'The boy jumped.'
2. $_{CP}$ [$_{IP}$ [$_{VP/vP}$ [$_{V'}$ *Llegó* [$_{DP}$ *el niño*]]]] (unaccusative)
   Arrive.PRET.3SG the boy
   'The boy arrived.'

Unergative verbs and unaccusative verbs differ from each other not only with respect to their syntactic properties, but also their semantic properties. Whereas unergative verbs are assumed to be non-telic, agentive and volitional, unaccusative verbs are telic and non-agentive and are associated with non-volitional roles. Sorace (2000, 2004) has proposed the Split Intransitivity Hierarchy, a universal continuum of semantic categories, with core unergative and core unaccusative verbs on both ends and more peripheral predicates in between, as shown in (3).

3. Split Intransitivity Hierarchy (Sorace 2000, 2004)

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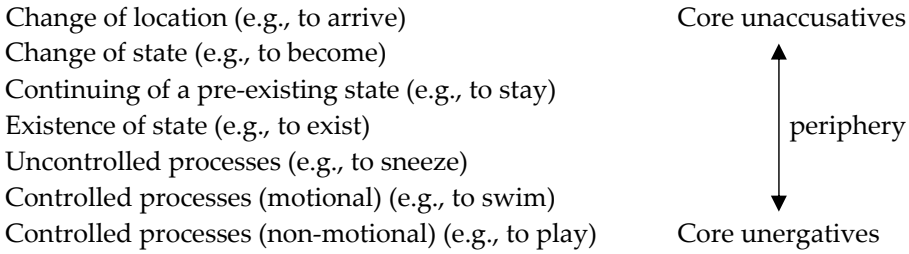
[2] Interestingly, immersion programs seem to be able to prevent the heritage language from being lost, although they do not necessarily result in completely monolingual-like development either (Kupisch and Pierantozzi 2010; Gathercole 2002a, 2002b; Montrul and Potowski 2007).

[3] It must be noted that most of the studies reported in this section made use of behavioral tasks such as grammaticality judgment tasks, and/or (elicited) oral production tasks. As pointed out by an anonymous reviewer, the differences demonstrated in these tasks may not necessarily indicate lack of knowledge, but rather lack of experience with the particular mode of language tested. More online measures should be included in child HS research (Jegerski 2018), to rule out potential task effects.



The second factor taken into consideration in this study is focus, which refers to the marking of what is to be the center of attention (Ocampo 2003). In this paper, we only discuss presentational focus, which introduces unpredictable or non-recoverable information to the discourse (Lambrecht 1994). However, it is important to emphasize that the element that is in focus is not necessarily discourse-new information. What is considered new is the relation between the element in focus and the rest of the proposition (Ocampo 1990). We distinguish between broad focus and narrow focus. Broad focus introduces an entire sentence, whereas narrow focus (on the subject in this case) introduces the subject specifically. In the generative literature (Ordóñez 1997; Zubizarreta 1998), narrow focus on the subject is argued to override the distinction between verb types: regardless of the verb, if the subject is in focus, it moves to [Spec, FocP], located in between IP and vP, and the verb moves to I, as shown in examples (4) and (5).

4. ¿Quién saltó? [CP [IP [I [v Saltó]j] [FocP [DP el niño]i [vP ti tj]]]] (unergative)
   who jump.PRET.3SG jump.PRET.3SG the boy
   'Who jumped? The boy jumped.'
5. ¿Quién llegó? [CP [IP [I [v Llegó]j] [FocP [DP el niño]i [vP ti tj]]]] (unaccusative)
   who arrive.PRET.3SG arrive.PRET.3SG the boy
   'Who arrived? The boy arrived.'

A third, and relatively understudied factor influencing word order in Spanish is the definiteness of the subject. Indefinite subjects are more likely to follow the verb, while definite subjects tend to precede the verb (e.g., Rivas 2008), as shown in examples (6) and (7).

6. El niño llegó. (definite)
   the boy arrive.PRET.3SG
   'The boy arrived.'
7. Llegó un niño. (indefinite)
   Arrive.PRET.3SG a boy
   'A boy arrived.'

There are many more factors that have been related to word order, such as the length of the subject (De Miguel Aparicio 1993), the animacy of the subject (Rivas 2008), information flow (Rivas 2008), priming (Benevento and Dietrich 2015), and the location of any adverbial phrases, if present (e.g., Kahane and Kahane 1950). These factors are not tested in the present study, but they are controlled for. The next section discusses word order in Dutch, focusing specifically on whether the three linguistic factors described above interplay with word order in this language.

4. Word Order in Dutch

In Dutch, word order is less flexible than in Spanish. SOV is considered to be the basic word order (Koster 1975) and this is the obligatory order in subordinate clauses, as demonstrated in (8).

8. omdat jij je werk zo goed doet.
   Because you your work so well do.2SG
   'Because you do your job so well.'

In main clauses, however, the V2 rule dictates that the verb has to come in second position. This means that the subject can either precede the verb, or follow it, if a non-subject constituent is in sentence-initial position, as illustrated in examples (9) and (10).

9. De vogels fluiten
   The birds sing.3PL
   'The birds are singing.'
10. Buiten fluiten de vogels
    Outside sing.3PL the birds
    'Outside the birds are singing.'

Since V2 allows for both pre- and postverbal subjects in main clauses, we do not expect a strong influence from Dutch onto Spanish when it comes to general word order preferences. As for verb type, the semantic distinction between unergative and unaccusative verbs is assumed to be universal, and thus exists in Dutch as well. However, this distinction is not reflected in word order differences, as in Spanish, but in several other constructions such as passive impersonal constructions (examples (11) and (12)), auxiliary selection (examples (13) and (14)), and prenominal past participles (examples (15) and (16)) (Hoekstra 1984).

11. Er werd door de mannen geschreeuwd (unergative)
    There was by the men jumped
    'There was being jumped by the men.'
12. *Er werd door de mannen aangekomen (unaccusative)
    There was by the men arrived
    'There was being arrived by the men.'
13. Ik **heb** geschreeuwd. (unergative)
    I **have**.1SG.PRES shouted
    'I have jumped.'
14. Ik **ben** aangekomen. (unaccusative)
    I **be**.1SG.PRES. arrived
    'I have arrived.'
15. *De geschreeuwde mannen (unergative)
    The shouted men
16. De aangekomen mannen (unaccusative)
    The arrived men

Presentational focus in Dutch is expressed through prosodic stress on the preverbal subject, rather than through inversion, as illustrated in examples (17) and (18) (Lozano 2006):

17. Wat is er gebeurd? Jan is vertrokken. (broad focus)
    what is there happened John is departed
    'What happened? John left.'
18. Wie is er vertrokken? JAN is vertrokken. (narrow focus)
    who is there left John is departed
    'Who has left? *John* has left.'

Both verb type and focus are thus not related to word order in Dutch. This structural difference between the heritage and the societal language may be expected to lead to cross-linguistic influence when it comes to these two factors.

For definiteness, there is a relation with word order in Dutch, which is similar, though not identical to Spanish. The definiteness effect in Dutch entails that sentences with there-insertion are only felicitous with indefinite subjects and not with definite subjects. This is illustrated in examples (19) and (20).

19. Er schreeuwde een man. (indefinite)
    there shouted a man
    'A man shouted.'
20. *Er schreeuwde d man. (definite)
    there shouted the man
    'The man shouted.'

In sum, Dutch differs considerably from Spanish regarding the linguistic constraints that play a role in determining word order in the two languages, especially for unaccusativity and focus, which are marked by means of word order differences in Spanish, but not in Dutch. We thus may expect transfer from the dominant language to occur for these factors. The next section discusses previous studies concerning word order and its linguistic constraints in adult and child heritage speakers.

5. Previous Research Concerning Subject Position

5.1. Word Order in Adult Heritage Speakers

Word order in heritage languages has been demonstrated to be prone to influence from the contact language, for instance in heritage Norwegian (Westergaard and Lohndal 2019), Swedish (Larsson and Johannessen 2015), Russian (Kagan and Dillon 2006), Dutch (De Bot and Clyne 1994) and Arabic (Albirini et al. 2011), in contact with English. Word order in Spanish as a heritage language has been studied extensively in the context of the U.S. These studies generally show an increased preference for preverbal subjects (e.g., Silva-Corvalán 1993, 2001; Hinch Nava 2007), especially in lower proficiency (Montrul 2005) and third-generation speakers (Silva-Corvalán 2001), which is generally attributed to influence from English. For Dutch-dominant heritage speakers, Van Osch and Sleeman (2018a) have shown the opposite pattern; a stronger preference for postverbal subjects compared to monolinguals, a finding that was attributed to influence from Dutch, which has a larger proportion of postverbal subjects than English due to V2.

As for the linguistic constraints on word order, the generative literature has predominantly focused on the comparison between verb type and focus, to test the prediction that the latter is more vulnerable due to its relation to information structure. Most of these studies have been carried out with Spanish–English bilingual populations, both with L2 speakers (e.g., Lozano 2006; Hertel 2003; Domínguez and Arche 2008, 2014; Parafita Couto et al. 2015) and with heritage speakers of Spanish in the U.S. (Zapata et al. 2005; De Prada Pérez and Cabo 2012). Zapata et al. (2005) conclude that the heritage speakers did not show target-like knowledge of either verb type or focus, given that they did not behave categorically in line with the predictions in each condition. However, a closer look at the data shows that they exhibit distinct patterns for unergative and unaccusative verbs respectively, which could be taken to indicate sensitivity to verb type. Similarly, they showed distinct patterns for broad and narrow focus, which could imply knowledge of the effect of focus. De Prada Pérez and Cabo (2012) found that heritage speakers of different proficiency levels showed knowledge of focus, but that only the low-proficiency speakers showed sensitivity to verb type. Montrul (2005), who only tested knowledge of unaccusativity, reports that heritage were sensitive to the effect of verb type on word order in a grammaticality judgment task.

Some studies in the variationist framework have also been devoted to unveiling the linguistic factors that determine word order in heritage Spanish in the U.S. Erker et al. (2017) compared Cuban heritage speakers to first-generation immigrants focusing on subject type, verb type (but not unergative vs unaccusative), sentence type, clause type, and subject animacy. The heritage speakers differed slightly from the immigrants, in that they showed a significant effect of clause type, and the relative weighting of the factors was not the same for both groups. Benevento and Dietrich (2015) tested heritage speakers in New Mexico and monolingual varieties, focusing exclusively at the position of *yo* (the first-person singular pronoun) respective to the verb. Several linguistic factors were taken into consideration, among which verb class, for which they distinguished between unaccusatives,

intransitives, transitives, copulas, and quotatives. Unergative verbs were not considered as a separate class. The heritage speakers showed a significant preference for postverbal position with quotatives, copulas, and unaccusatives, but not with transitives and intransitives. They thus showed sensitivity to the effects of verb type on subject position, although the specific contrast of interest to the present study (unaccusatives vs. unergatives) was not tested. No differences were found between the heritage speakers and the immigrants.

Not much is known about the effect of definiteness on word order in heritage Spanish.[4] In Van Osch and Sleeman (2018a), heritage speakers of Spanish in the Netherlands were tested on their knowledge of word order by means of an acceptability judgment task that included definiteness of the subject as a variable. The heritage speakers did not significantly distinguish between definite and indefinite subjects. Verb type and focus, on the other hand, were found to be significant predictors of word order in the same speakers: postverbal subjects were preferred more with unaccusative verbs than with unergative verbs and more in narrow focus than in broad focus.

Summing up, adult heritage speakers' word order preferences seem to be influenced by word order patterns in their majority language. As for the factors of interest in this study, some, but not all studies found that HSs of Spanish are sensitive to the verb type and the focus constraints on word order. More research is necessary to corroborate these findings.

5.2. Word Order in Monolingual Acquisition

Monolingual Spanish children are reported to use both null and overt subjects from a very early age, around age 2 (e.g., Grinstead 1998; Bel 2003)[5]. While preverbal and postverbal subjects develop simultaneously (Grinstead 1998; Bel 2001, 2003; Ortega-Santos 2006; Villa-García 2011; Villa-García and Suárez-Palma 2016), some evidence suggests that preschool-aged monolingual children have a preference for postverbal subjects. Friedmann and Costa (2011) found a clear preference for VS in a story retelling task and a sentence repetition task carried with 22 Argentinian children between the ages of 1;11 and 4, as well as in the spontaneous oral production of one monolingual child between age 1;07 and 2;07. Villa-García and Suárez-Palma (2016) report a similar pattern for the spontaneous production data of one monolingual child in Spain between the ages of 1;05 and 2;01, although it is not clear whether this difference is significant. A VS preference has also been attested for children acquiring other pro-drop languages, such as Italian (Bates 1976) and Catalan (Gavarró and Cabré-Sans 2009). In contrast, Villa-García (Villa-García and Suárez-Palma 2016) reports a higher percentage of SV for three monolingual children in Spain.

As for the linguistic constraints on word order, a number of studies show that monolingual children are sensitive to the relation between word order and verb type distinctions well before the age of 4 (e.g., Grinstead 1998; Bel 2001, 2003; Ortega-Santos 2006; Casielles et al. 2006; Friedmann and Costa 2011[6]; Villa-García and Suárez-Palma 2016). Children's sensitivity to focus has been studied less extensively, but some evidence suggests that monolingual Spanish children distinguish between broad and narrow focus by the age of 5. The monolingual child examined by Villa-García and Suárez-Palma (2016) between the ages of 1;05 and 2;01 used exclusively postverbal subjects in contrastive/new

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[4] Several other aspects related to definiteness have been studied in heritage language. In heritage Turkish, for example, Felser and Arslan (2019) have looked at semantic constraints on the use of the definite article; Kupisch et al. (2017) investigated definiteness effects in existential constructions, and Doğruöz and Backus (2009) focused on the relation between definiteness and phrasal word order among other things. Morphological constraints on definiteness have been investigated in heritage Norwegian (Anderssen et al. 2018), Swedish (Håkansson 1995) and Hungarian (Bolonyai 2007).

[5] Grinstead (1998) argues that children go through a "no overt subject" stage, during which they exclusively produce null subjects, a claim supported by some studies (e.g., Villa-García 2013), but criticized by others (e.g., Aguado-Orea and Pine 2002; Bel 2001, 2003).

[6] The results for the sentence repetition task in Friedmann and Costa (2011) showed that Argentinian children between age 2;08 and 4 distinguished between unaccusative and unergative verbs, although they overgeneralized VS. However, the same study reported spontaneous production data from one monolingual child from age 1;07 to 2;07, and this child showed no distinction between unergative and unaccusative verbs.

information contexts (referred to as narrow focus in this study). Pladevall-Ballester (2010) tested monolingual Spanish children aged 5, 10 and 17 (these were control groups for child L2 speakers), and showed that the youngest group preferred VS order more with unergatives in narrow focus (72.43%) than with unergatives in broad focus (42.86%). However, the 10-year-old group still differed from the adult group, suggesting that complete mastery of the effect of focus takes time. We do not know of any studies that have investigated the relation between definiteness and word order in monolingual Spanish acquisition. For Italian, Vernice and Guasti (2015) found that definiteness of the subject affected word order choice in 4- and 5-year old Italian children, but only with unaccusative predicates. With these verbs, definite subjects prompted SV orders, which otherwise appear with VS. However, we cannot assume that Spanish monolingual children also make this distinction.

In sum, preschool monolingual children use both pre- and postverbal subjects from early on, but seem to prefer VS. They already distinguish between verb types, and perhaps between focus types as well, although more evidence is needed to support this. It is not clear from the literature at which age sensitivity to the definiteness effect on word order develops in monolingual Spanish. This is why the present study also includes age-matched monolingual children. The data from these groups will allow us to determine whether any divergence in the child heritage speakers can be considered 'typical' late acquisition, or whether we are dealing with delayed/arrested acquisition or attrition.

5.3. Word Order in Child Heritage Speakers

The development of subjects in bilingual children is typically researched through corpus studies on Spanish–English bilingual children (with generally very few subjects), and the focus has generally been on the proportion of overt subjects in the children's Spanish, which some studies have shown to be higher in bilingual children than in monolingual children (e.g., Paradis and Navarro 2003; Villa-García and Suárez-Palma 2016).

As for the division of labor between preverbal and postverbal subjects, two studies are worth mentioning. Silva-Corvalán (2014), in a longitudinal study about her two English–Spanish bilingual grandsons, reports that both siblings used pre- and postverbal subjects from early on, but prefer the preverbal position, especially with pronominal subjects. For both children, the proportion of preverbal subjects increases even more after age 4, which is when exposure to English increases. Villa-García and Suárez-Palma (2016) carried out a study on four Spanish–English bilingual children[7] aged between 1;05 and 3;03, of which two can be considered heritage speakers of Spanish, and one monolingual Spanish child. For the two child heritage speakers, a higher number of preverbal subjects was attested, namely 69.6% and 69.7% respectively, compared to 46.6% for the monolingual child. Although at first sight this may appear to indicate influence from the dominant language, English, it must be noted that one of the bilingual children, Manuela, was exposed to Cuban Spanish, which exhibits a larger number of preverbal subjects (e.g., Ordóñez and Olarrea 2006). This could (in part) explain this child's increased proportion of preverbal subjects. Casielles et al. (2006) found that postverbal subjects were acquired one month earlier than preverbal subjects in one English–Spanish bilingual child, although no statistics were reported.

With respect to knowledge of the constraints on word order in Spanish, Silva-Corvalán (2014) reports that the two siblings used postverbal subjects more with unaccusative verbs than with unergative and transitive verbs (the latter two verb types are collapsed). However, the proportion of postverbal subjects with unaccusative verbs decreased steadily with age: it started at 85% (the elder sibling) and 64.7% (the younger sibling), but by the age range of 4;0–5;11 it had decreased to only 17.3% (data from both children combined). Nevertheless, during the same age range, the percentage of postverbal subjects with unergatives and transitives was considerably lower (6.2%), suggesting that

[7] Three of these children were also studied in previous studies, namely Paradis and Navarro (2003), Liceras et al. (2008) and Liceras et al. (2012).

the children still differentiate between verb types, although it is not clear whether this difference is statistically significant. As for focus, Silva-Corvalán (2014) did not include broad vs. narrow focus as a variable in her study, but based on a qualitative analysis considering the relative informative weight of the various constituents, she concludes that there are very few instances of pragmatically infelicitous subject placement in the children's data. The two child heritage speakers in Villa-García and Suárez-Palma (2016), Manuela and Carla, used postverbal but not preverbal subjects with unaccusative verbs, which seems to indicate sensitivity to the distinction between verb types. Carla also showed sensitivity to focus, that is, she used postverbal subjects several times to express contrastive/new information focus.

To our knowledge, the effect of definiteness on word order has not been tested for bilingual children[8], and none of the three factors (verb type, focus and definiteness) have been looked at for child heritage speakers of Spanish in the Netherlands.

Summing up, the few existing studies with child heritage speakers of Spanish in the U.S. suggest an increased preference for SV as compared to monolingual children, but despite this, the children seem to be sensitive to verb type, and possibly also to focus.

6. Research Questions and Hypotheses

The present paper explores the acquisition of word order and the linguistic factors that influence it in heritage speakers of Spanish in the Netherlands. Our objective is twofold. First of all, we aim to describe the development of this phenomenon in heritage speakers, and the way(s) in which it may diverge from monolingual acquisition. We focus on general word order preferences, as well as the knowledge of the linguistic factors that determine subject position. Second, if divergence is indeed attested, we want to explain what causes it. To approach these questions, we formulate three research questions. The first two questions concern the comparison between age groups with regard to the different elements of knowledge about word order.

1. Do 9-year-old, 13-year-old and adult heritage speakers and monolingual speakers show a general preference for one order to the other?
2. Do 9-year-old, 13-year-old and adult heritage speakers and monolingual speakers show knowledge of the linguistic constraints on word order?

While comparing heritage speakers to monolingual baseline speakers will provide insight into the type and the degree of divergence, juxtaposing three groups of heritage speakers of different ages will give us a sense of how the heritage language develops in apparent time. Four different scenarios may be hypothesized, and each of these hypotheses would point toward a different explanation for what underlies heritage speaker divergence.

Hypotheses 1 (H1). *If all heritage speaker groups resemble their age-matched monolingual peers, this indicates typical monolingual-like development.*

Hypotheses 2 (H2). *If younger heritage speakers perform better than older heritage speakers, this implies attrition or reanalysis of the heritage language in the older HSs.*

Hypotheses 3 (H3). *Conversely, if older heritage speakers perform better than younger heritage speakers, this may mean several things:*

a. If the adult heritage speakers still differ from the monolingual baseline, this points towards arrested development

[8] Other aspects related to definiteness have been investigated, such as the semantic constraints on article choice, in Turkish–English and Turkish–Dutch bilingual children (Chondrogianni et al. 2015).

b. If the adolescent HSs, but not the adults, diverge from their monolingual peers, this suggests delayed acquisition in the older HSs.

Hypotheses 4 (H4). *If all heritage speaker groups fail to show monolingual-like knowledge, this will be more difficult to interpret unequivocally. It may indicate that the input heritage speakers received was different and did not exhibit the target phenomenon in a monolingual-like manner, but it may also mean that reduced input in the heritage language, and increased input in the societal language affected the heritage language from an early age on.*

To further investigate the underlying causes of heritage speakers' divergence with word order, we formulate the following research question:

3. To what degree can individual differences between adult heritage speakers be explained by extraneous variables?

To answer this question, we will run statistical models on the data from the adult heritage speakers, including a range of variables related to input, use, proficiency, instruction and attitudes.

7. Methodology

7.1. Participants

Three groups of heritage speakers participated in this experiment: a group of 15 children around 9 years old; a group of 13 children around 13 years old; and a group of 20 adult heritage speakers between the ages of 19 and 36 (mean age 25). The labels '9-year-olds' and '13-year-olds' used in the remainder of this paper should be interpreted as approximations; in reality, the ages in the '9-year-old' group ranged from 7;8 to 10.4 (mean age: 9;4, SD: 10.5 months) and for the '13-year-old' group, the ages ranged from 11;6–14;3 (mean age: 12;7, SD: 11 months).

7.1.1. Child Heritage Speakers

25 of the 28 child heritage speakers were born in the Netherlands, while the remaining 3 were born in Spain but moved to the Netherlands before the age of 5. The majority had only one Spanish-speaking parent, and this was always the mother. In around 65% of the cases, the Spanish-speaking parent was originally from Spain. The background of the remaining 35% varied between Mexico, Colombia and (most of all) Argentina. Given that Caribbean varieties of Spanish use more preverbal subjects than other varieties, and do not distinguish between unergative and unaccusative verbs (Ortiz López 2009; Dauphinais Civitello and Ortiz-López 2016), speakers of these varieties were not included. We do not know of any other documented dialectal variation in Spanish regarding subject-verb word order.

Four children had two Spanish-speaking parents but were exposed to Dutch before the age of 5. The amount of exposure to Spanish differed among participants since about 60% of the children attended a Spanish Saturday school, a reading group or language lessons organized by the Spanish consulate in the Netherlands. The network of speakers also varied across participants; some children went to a Spanish-speaking country two to three times a year to visit their relatives, whereas others had only done so a few times in their lives. Nonetheless, all children in this study were considered to be balanced bilinguals as they were exposed to and used both languages on a daily basis.

7.1.2. Adult Heritage Speakers

For the comparison with adult heritage speakers, a subgroup of the participants from Van Osch and Sleeman (2018a) was selected, based on similarity with the children in terms of socio-linguistic characteristics, such as the specific variety of Spanish spoken and the family situation while growing up. There is an overlap of approximately 65% between the participants in the two studies. Of the adult heritage speakers who participated in the present study, 18 were born in the Netherlands and two immigrated during childhood (one at 4 months of age and the other one at age 5). Two were raised

in families where both parents spoke Spanish, while the others were raised in bilingual households, usually with the mother being the Spanish-speaking parent. Their parents spoke a range of different varieties of Spanish which were similar to those of the child participants, namely peninsular (9), Mexican (7), Colombian (3) and Argentinian (1) Spanish. All adult participants indicated being mostly exposed to Spanish in childhood at home and reported a decrease in input and use of Spanish from school-age onward. Most participants reported numerous visits to their home country throughout their lives, sometimes even for several months. Many had received some type of instruction in Spanish, such as at Saturday or Sunday schools or as a subject in school/university. As for their current language use, most participants reported predominantly speaking Dutch at home, but some also spoke Spanish. The main language outside the home was always Dutch. General proficiency in Spanish was measured by means of a lexical decision task, on which they scored on average 108.2 out of 150 (Range: 97–122) and part of the DELE (*Diploma de Español como Lengua Extranjera*), a standardized proficiency task used by the Spanish Ministry of Education, Culture and Sport to grant official diplomas of Spanish competence (mean: 39.70 out of 49, Range: 33–44).

7.1.3. Monolingual Controls

For each group of heritage speakers, there was an age-matched monolingual control group. There were 24 9-year-old monolinguals, 22 13-year-old monolinguals and 16 adults. The monolingual children were born and raised in Madrid and spoke Spanish exclusively. The monolingual adults were Spanish-speaking immigrants who had arrived in the Netherlands less than six months before the experiment took place. Although they grew up monolingually, most of them had learned to speak English as adults. However, they had no knowledge of Dutch whatsoever. The varieties of Spanish spoken by the adult controls were very similar to the heritage speakers, namely: peninsular (9), Mexican (4), Colombian (2) and Argentinian (1).

7.2. Task and Procedure

7.2.1. Children's Task

The children carried out an oral paired preference task on a computer screen using PowerPoint. First, two puppets (Ana and María) appeared on the screen. The children were told that these were two girls living in the Netherlands who were learning Spanish and were going to Spain on vacation and they were asked to help the girls with their Spanish by telling them which answer sounded most natural to them, so that the puppets could practice and be understood in Spain. For each experimental item, the child would listen to a story about animals, accompanied by one or two images. The stories were followed by the question ¿*Qué pasó*? ('What happened?)' in the broad focus condition or ¿*Quién*? + a past-tense verb ('Who V-ed?'), in the narrow focus condition. The two puppets appeared on the screen sequentially, and each one provided an answer to the question. One of the answers contained SV order, and the other VS order, and the child was instructed to choose which puppet said it best[9]. The stories and answer sentences were presented only auditorily and were recorded by a female native speaker of Iberian Spanish who was instructed to avoid prosodic stress on either of the two constituents to avoid a confounding effect of prosody. The order of presentation of the puppets was counterbalanced, as was the order of the target response. The experiment was carried out individually in a quiet room. Children in the heritage speaker groups were mostly tested in their homes and occasionally at the facilities within the University of Amsterdam or similar institutions such as the Instituto Cervantes in Utrecht, while the monolingual children were tested at their schools in Madrid.

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[9] The reason both options were presented in the same trial is that presenting only one order per trial might result in the participants accepting all the sentences. After all, even though one order is expected to be more felicitous than the other, neither of the two is ungrammatical. Presenting both orders simultaneously would immediately make the participants consider the other option, and force them to choose which one sounded better.

Prior to the test, the experimenter, who was a native speaker of Spanish, talked to the child for at least fifteen minutes to ensure that he or she felt comfortable, and to activate the Spanish language. During this time, the child was asked some basic questions about their language background.

7.2.2. Adults' Task

The adult participants started out with a lexical decision task measuring general proficiency, which was followed by a scalar acceptability judgment task targeting word order. This task was similar to the children's task in that it was presented on a computer screen and consisted of auditorily presented stories followed by two sentences that had to be judged. However, given that this task was designed for adult participants, there were some differences. There were no pictures to accompany the stories, the story and the sentences were presented simultaneously in written and auditory form, and instead of evaluating puppets, participants had to rate the two sentences on a Likert scale from −2 to 2. The recordings were made by a male native speaker of Colombian Spanish, who was instructed to speak clearly and to avoid applying prosodic stress on either the verb or the subject. After the judgment task followed an elicited production task, which also targeted word order among other constructions, but which is not the focus of this paper.[10] The DELE was administered to the participants on paper at the end of the experiment, along with an extensive background questionnaire which targeted information about the quantity and quality of the input and use of their heritage language and the dominant language. Participants were asked to indicate, for different stages in their lives (0–5 years, 6–12 years, 13–18 years, 18+), how much they had been exposed to Spanish, Dutch and other languages at home, and how much they themselves had spoken their heritage language at home. They were also asked whether they had spent some time in Spanish-speaking countries, and if so, where, at what age, and for how many months. They had to indicate whether or not they had received any type of formal instruction in Spanish, and if so, what kind of instruction, at what age, and for how long. For their current situation, they were asked to report how often they were exposed to, and used Spanish, Dutch and other languages at home, at work or study and in their free time outside the house, and how often they read books, watched TV/movies, and listened to music in Spanish. Given that previous research has shown that elder siblings tend to be most fluent in the heritage language (Shin 2002), it was asked how many elder and younger siblings they had. The questionnaire also asked how long their parents had lived in the Netherlands before the participant was born, which might be used as an indicator of possible changes in the input. After all, the more time the parents have been exposed to Dutch, the more likely it is that this language contact will have affected their native language. Finally, there were ten statements containing both negative and positive associations with their heritage language, which the participants had to judge on a Likert scale.

7.3. Stimuli

7.3.1. Children's Task

The preference task for the children included 32 target items. As described above, each stimulus consisted of a story followed by either the question *¿Qué pasó*? ('What happened?') to target broad focus or *¿Quién* + V? ('Who V-ed?') for narrow focus. Half of the items contained unaccusative verbs, while the other half contained unergative verbs. For the unergative condition, the verbs used were *saltar* ('to jump'), *silbar* ('to whistle'), *gritar* ('to shout') and *llorar* ('to cry'), while for the unaccusative condition, the verbs were *caerse* ('to fall'), *entrar* ('to enter'), *salir* ('to leave') and *llegar* ('to arrive'). Moreover, half of the items contained a definite subject and the other half contained an indefinite subject. As such, there were eight conditions with four items each. Three practice items were included, but in

[10] The production task was not very successful in eliciting the targeted structures; in the narrow-focus condition, the verb was often not produced, which means these cases cannot tell us anything about word order.

order to limit the length of the experiment, no fillers were used. Appendix A contains an overview of all the target stimuli in this task. An example of an item in the broad focus— unaccusative—definite subject condition is given in (21).

21. *Tres perritos están jugando en la playa y se están divirtiendo mucho. Mientras juegan, se ve llegar a su amigo el gato, muy triste porque no lo habían avisado. ¿Qué pasó?*
'Three doggies are playing on the beach, and they are having a great time. While they play, they see their friend, the cat arrive, who is very sad because they hadn't invited him. What happened?'

El gato llegó. Llegó el gato.
the cate arrive.3SG.PRET. arrive.3SG.PRET the cat
'The cat arrived. Arrived the cat.'

7.3.2. Adults' Task

The stimuli for the adults' task were similar to the ones used for the children, but instead of stories about animals, the stories were about people. Like in the children's experiment, the stories always ended with either the question *¿Qué pasó*? ('What happened?') to target broad focus or *¿Quién* + V? ('Who V-ed?') for narrow focus. Half of the items contained unaccusative verbs and the other half, unergative verbs. The unaccusative verbs used were *venir* ('to come'), *llegar* ('to arrive'), *regresar* ('to return'), *entrar* ('to enter'), *irse* ('to leave'), *desaparecerse* ('to disappear'), *morirse* ('to die') and *escaparse* ('to escape'). The unergative verbs were *bailar* ('to dance'), *correr* ('to run'), *llamar* ('to call'), *llorar* ('to cry'), *reírse* ('to laugh'), *cantar* ('to sing'), *gritar* ('to shout'), *limpiar* ('to clean') and *tocar* ('to play (music)'). Finally, half of the subjects were definite, and half were indefinite. There were thus eight conditions, each with three items, with a total of 24 items. An example of an item in broad focus—unaccusative verb—definite subject condition is given in (22). The complete set of target stimuli can be found in Appendix B.

22. *Mi compañero de casa, Pepe, nunca quiere que haya fiesta en nuestra casa. Este fin de semana se fue de vacaciones. Yo aproveché y planeé una fiesta para el sábado, pero el sábado en la mañana veo que Pepe ha regresado inesperadamente. Tengo que cancelar la fiesta. Hablando con mi mamá, me nota un poco malhumorado, así que me pregunta: "¿Qué pasó?" Le contesto:*

'My housemate Pepe never wants to have parties in our house. This weekend he went on vacation. I took advantage and planned a party on Saturday, but Saturday morning I see that Pepe has returned unexpectedly. I have to cancel the party. Talking to my mom, she notices that I'm a little cranky, so she asks me: "What happened?" I answer her:'

Mi compañero regresó. Tuve que cancelar la fiesta.
my housemate return.3SG.PRET. have.1SG.PRET to cancel the party
'My housemate came back. I had to cancel the party.'
○ ○○ ○ ○
−2 −1 0 1 2

Regresó mi compañero. Tuve que cancelar la fiesta.
return.3SG.PRET my housemate have.1SG.PRET to cancel the party
'Came back my housemate. I had to cancel the party.'
○ ○ ○ ○ ○
−2 −1 0 1 2

The adult experiment included three practice items, as well as 54 filler items targeting mood (which are reported on in Van Osch and Sleeman 2018b and van Osch et al. 2017).

8. Analysis and Results

For all analyses presented in this paper, (generalized) mixed effects models were run using the lme4 package (Bates et al. 2012) in the R environment (R Development Core Team 2017). All categorical factors were coded as −0.5 vs. +0.5 using orthogonal sum-to-zero contrasts. Each model includes random intercepts for subject and item, and random slopes were included if these significantly improved the model fit, following Baayen et al. (2008).

8.1. Nine- and 13-Year-Olds

For the data from the four child groups, generalized linear mixed effects models were run, with 'response' (VS or VS) as the dependent variable and 'verb type' (unergative vs. unaccusative verbs), 'focus' (broad vs. narrow focus), and 'definiteness' (definite vs. indefinite subjects) as fixed factors. The four groups were first analyzed separately to see whether each group showed knowledge of the relevant constraints on word order.

The model for the 9-year-old monolinguals rendered significant effects for verb type, focus, and definiteness (verb type: $\beta = 0.78$, $SE = 0.26$, $z = 2.96$, $p = 0.003$; focus: $\beta = 0.70$, $SE = 0.25$, $z = 2.84$, $p = 0.004$; definiteness: $\beta = 0.91$, $SE = 0.19$, $z = 4.67$, $p < 0.001$), indicating that they had a significantly greater preference for VS with unaccusative verbs than with unergative verbs, in narrow focus than in broad focus, and with indefinite subjects than with definite subjects. The interaction between verb type and focus was also significant ($\beta = -1.20$, $SE = 0.43$, $z = -2.81$, $p = 0.005$), indicating that the difference in word order preferences between unergative and unaccusative verbs was bigger in broad focus than in narrow focus, and that the difference between word order preferences between broad and narrow focus was bigger for unergative verbs than for unaccusative verbs.

The model for the 9-year-old heritage speakers showed significant main effects of verb type ($\beta = 0.71$, $SE = 0.19$, $z = 3.70$, $p < 0.001$) and definiteness ($\beta = 0.41$, $SE = 0.19$, $z = 2.16$, $p = 0.03$) in the expected direction, but not of focus ($\beta = -0.03$, $SE = 0.19$, $z = -0.14$, $p = 0.89$). The 9-year-olds' results for verb type, definiteness, and focus are depicted in Figures 1–3, respectively.

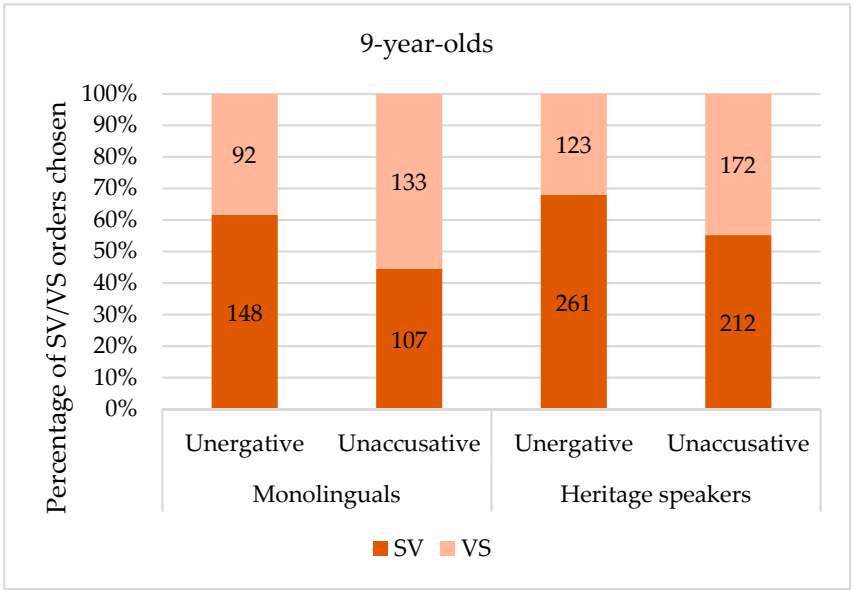

Figure 1. The effect of verb type in 9-year-old monolinguals and heritage speakers (raw counts and percentages).

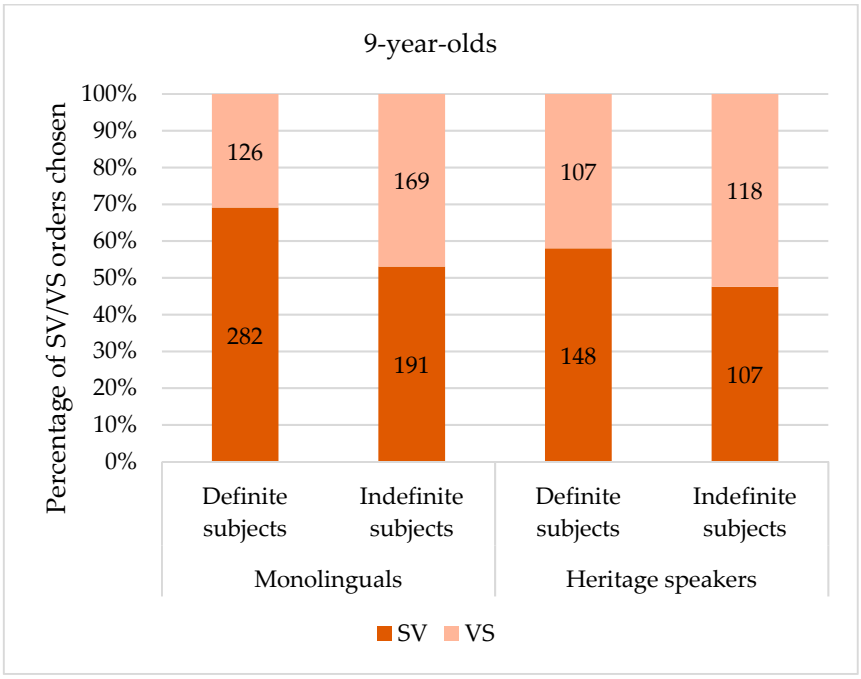

Figure 2. The effect of definiteness in 9-year-old monolinguals and heritage speakers (raw counts and percentages).

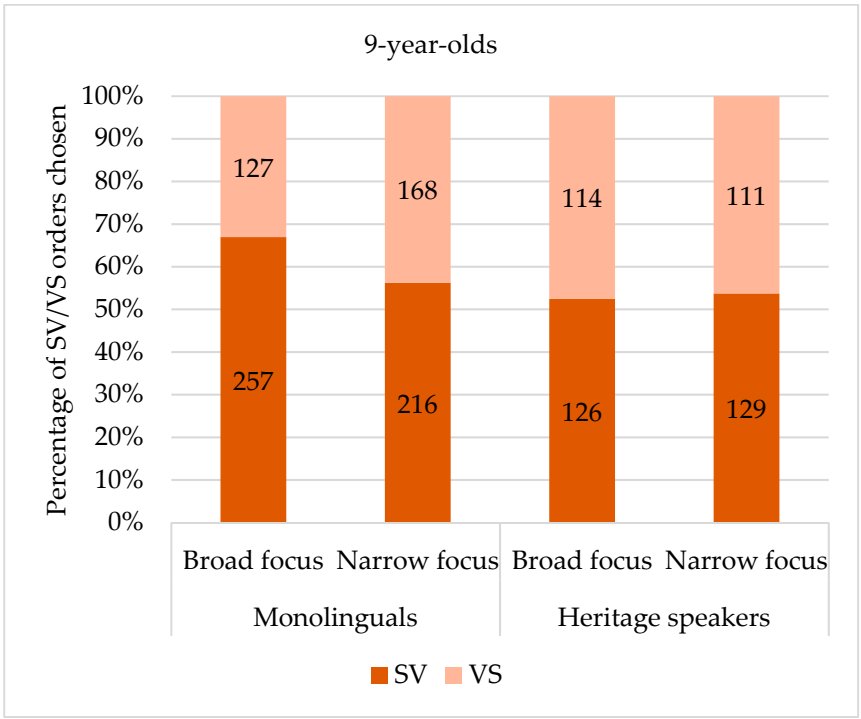

Figure 3. The effect of focus in 9-year-old monolinguals and heritage speakers (raw counts and percentages).

Just like the 9-year-old monolinguals, the 13-year-old monolinguals showed significant effects of all three linguistic factors: verb type ($\beta = 1.14$, $SE = 0.20$, $z = 5.78$, $p < 0.001$); focus ($\beta = 1.31$, $SE = 0.20$, $z = 6.63$, $p < 0.001$) and definiteness ($\beta = 0.80$, $SE = 0.20$, $z = 4.03$, $p < 0.001$), and a significant interaction between verb type and focus ($\beta = -1.07$, $SE = 0.39$, $z = -2.72$, $p = 0.006$).

The model for the 13-year-old heritage speakers showed an identical pattern to that of the 9-year-old heritage speakers: the effects of verb type and definiteness were significant (verb type: $\beta = 0.89$, $SE = 0.26$, $z = 3.44$, $p < 0.001$; definiteness: $\beta = 0.91$, $SE = 0.26$, $z = 3.51$, $p < 0.001$), but the effect of focus was not ($\beta = 0.34$, $SE = 0.26$, $z = 1.33$, $p = 0.18$). The results for the 13-year-old groups are illustrated in Figures 4–6, respectively.

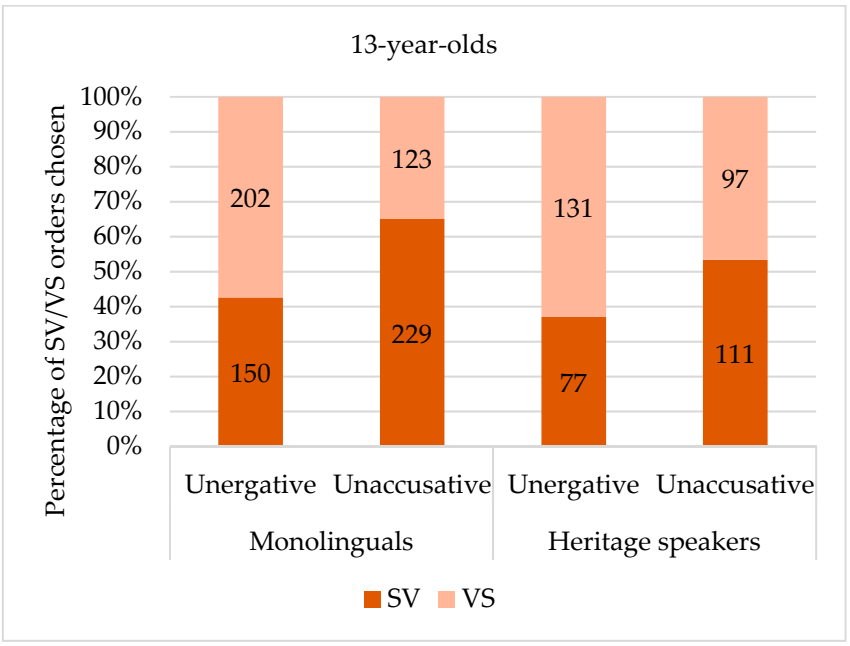

Figure 4. The effect of verb type in 13-year-old monolinguals and heritage speakers (raw counts and percentages).

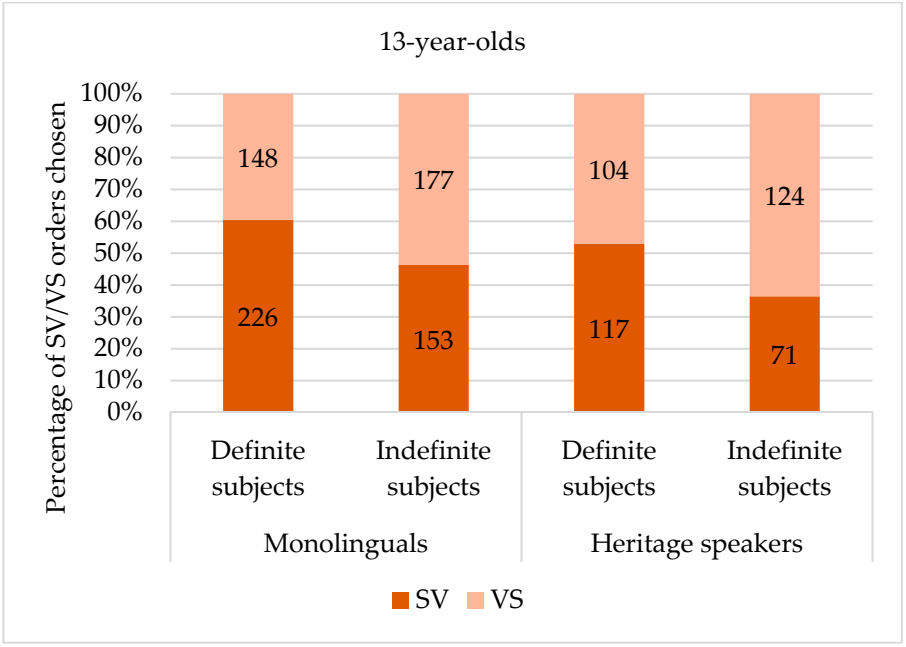

Figure 5. The effect of definiteness in 13-year-old monolinguals and heritage speakers (raw counts and percentages).

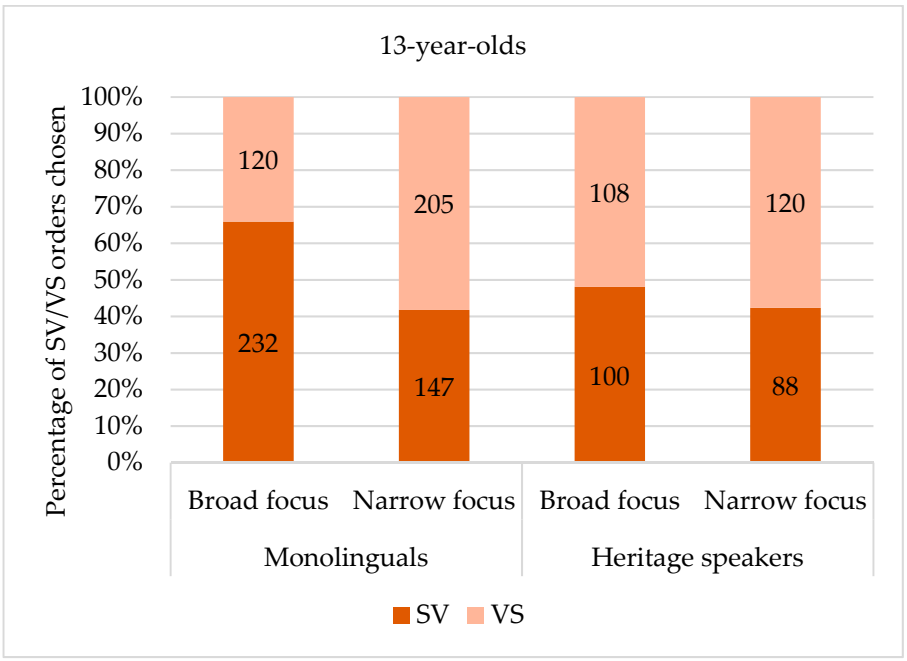

Figure 6. The effect of focus in 13-year-old monolinguals and heritage speakers (raw counts and percentages).

To check whether the children demonstrated a general preference for one word order or the other, we can use the models' intercepts as an indicator. For the 9-year-old monolinguals, the intercept of the model was significant ($\beta = 0.65$, $SE = 0.19$, $z = -3.27$, $p = 0.001$), meaning that these children chose SV more often than VS across all conditions. For all other child participant groups, the model intercepts were not significant (9-year-old heritage speakers; $\beta = -0.12$, $SE = 0.16$, $z = -0.80$, $p = 0.42$; 13-year-old monolinguals: $\beta = -0.22$, $SE = 0.19$, $z = -1.13$, $p = 0.26$; 13-year-old heritage speakers: $\beta = 0.28$, SE = 0.37, z = 0.76, $p = 0.45$), indicating that they did not significantly choose one order more often than the other. The general word order preferences across conditions for all child groups are depicted in Figure 7.

To check for quantitative differences between the groups, an additional model was run on all four groups combined, that is, for both age groups (9-year-olds and 13-year-olds) and for both monolingual children and child heritage speakers. This model included the variables 'language' (monolingual vs. heritage) and 'age' (9-year-olds vs. 13-year-olds), in addition to verb type, focus and definiteness. The model rendered a significant effect for language ($\beta = 1.01$, $SE = 0.23$, $z = -2.07$, $p = 0.04$), indicating that, across conditions, the child heritage speakers of both age groups combined chose VS relatively more often than their monolingual peers. The effect of age was not significant ($\beta = -0.40$, $SE = 0.23$, $z = -1.72$, $p = 0.09$), but indicated a tendency for older speakers (both monolingual and heritage) to use VS relatively more, as can be seen in Figure 7. The model moreover rendered significant main effects for the three linguistic factors of interest (verb type: $\beta = 0.91$, $SE = 0.14$, $z = 6.64$, $p < 0.001$; focus: $\beta = 0.61$, $SE = 0.15$, $z = 4.03$, $p = 0.001$; definiteness: $\beta = 0.76$, $SE = 0.13$, $z = 5.85$, $p < 0.001$), indicating that all child participants combined chose VS order relatively more often with unaccusative predicates, in narrow focus, and with indefinite subjects. A significant interaction between verb type and focus ($\beta = -0.61$, $SE = 0.25$, $z = -2.45$, $p = 0.01$) showed that, for all groups combined, the difference in word order preferences between verb types was different in broad focus than in narrow focus. As for the difference between monolingual and heritage speakers, a significant interaction between language and focus ($\beta = -0.79$, $SE = 0.27$, $z = 2.97$, $p = 0.002$) confirmed that the monolingual children of both ages were significantly more sensitive to focus (i.e., they chose VS relatively more often in narrow than in broad focus) than the child heritage speakers of all ages. This effect is illustrated in Figure 8.

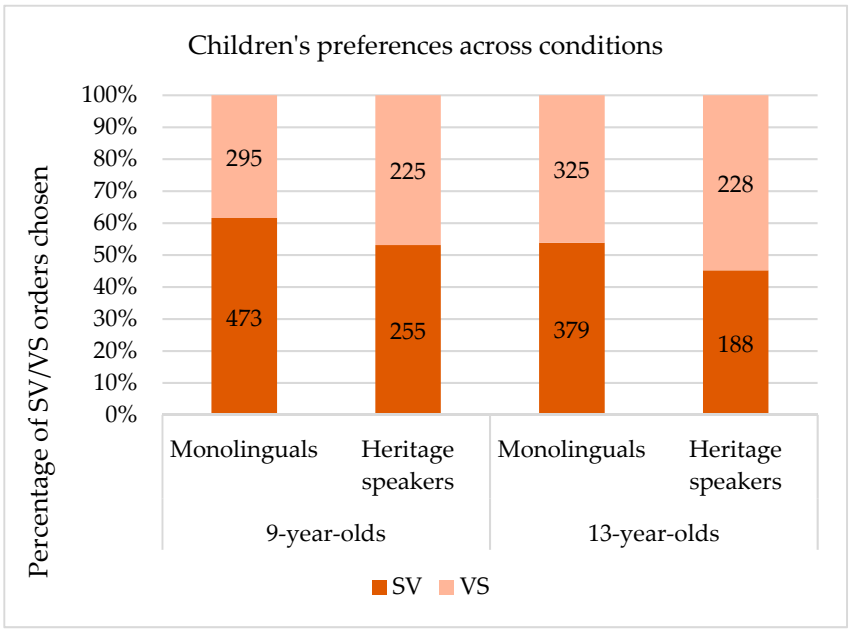

Figure 7. Word order preferences across conditions for (9-year-old and 13-year-old monolinguals and heritage speakers; raw counts and percentages).

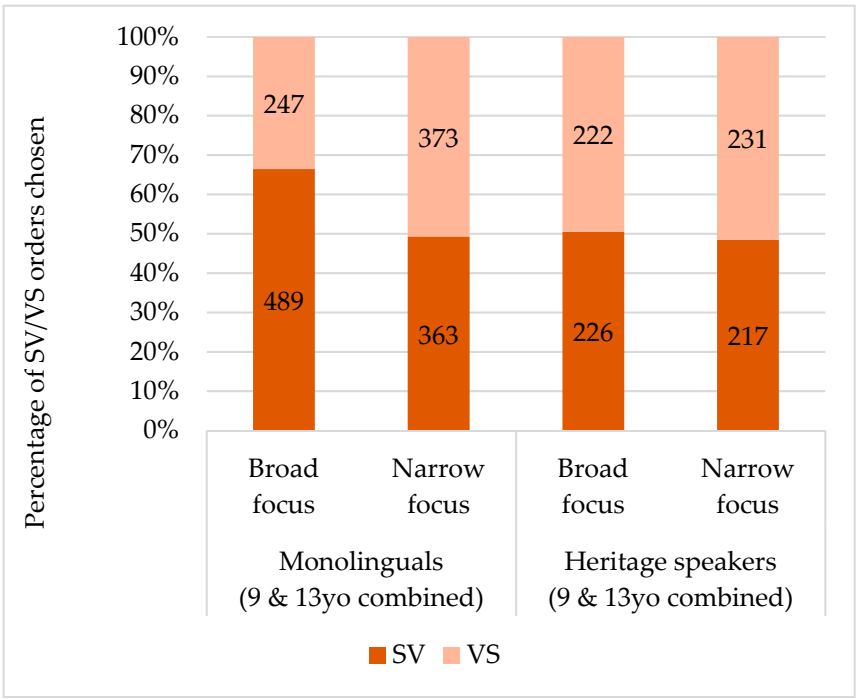

Figure 8. The effect of focus in monolingual and heritage children (9-year-olds and 13-year-olds combined; raw counts and percentages).

Furthermore, a significant interaction between age and focus ($\beta = -0.62$, $SE = 0.27$, $z = -2.34$, $p = 0.02$), indicated that older children (monolinguals and bilinguals combined) were more sensitive to focus (i.e., they chose VS relatively more often in narrow focus than in broad focus) than younger children. This interaction is depicted in Figure 9.

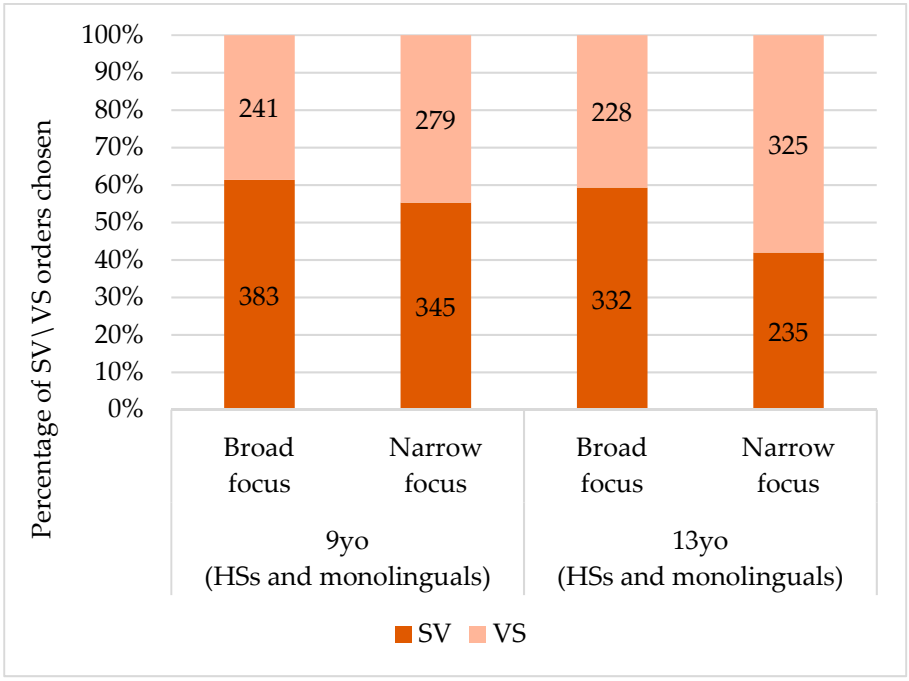

Figure 9. The effect of focus in 9-year-olds and 13-year-olds (monolinguals and heritage speakers combined; raw counts and percentages).

Finally, there was a three-way interaction between language, verb type and focus ($\beta = -0.84$, $SE = 0.41$, $z = -2.02$, $p = 0.04$), which means that the monolinguals (of all ages) showed a stronger effect of focus (i.e., different word order preferences between broad and narrow focus) with unergative verbs than with unaccusative verbs, while the heritage speakers (of all ages) showed this pattern to a lesser extent, if at all. This interaction is depicted in Figure 10.

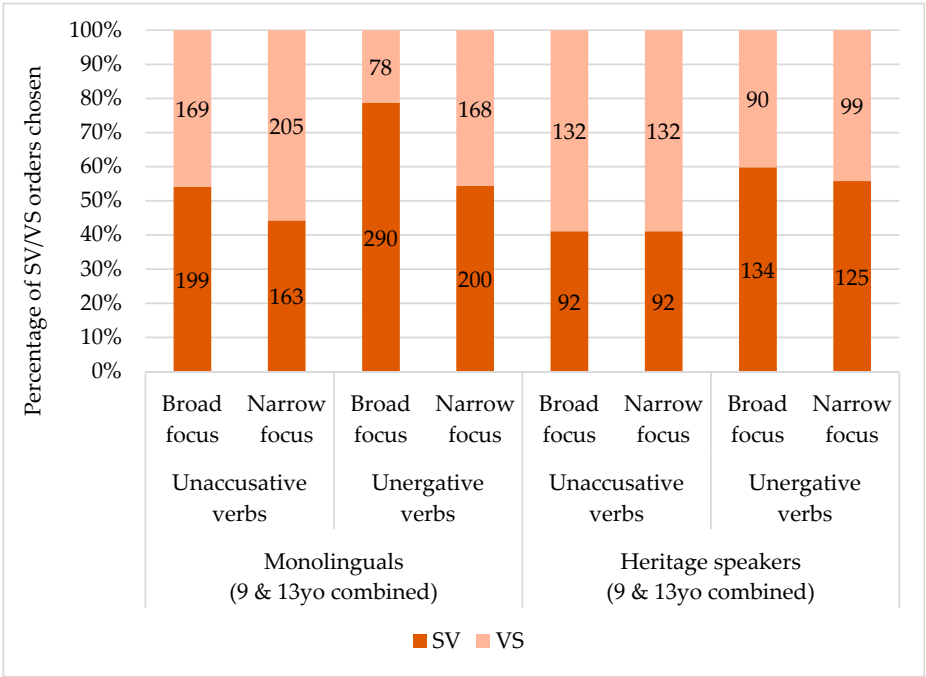

Figure 10. The interaction between focus and verb type in monolinguals and heritage speakers (9-year-olds and 13-year-olds combined; raw counts and percentages).

8.2. Adults

The adult data were analyzed in two ways. First, the two groups—monolinguals and heritage speakers—were compared to each other to investigate if, and to what degree, they differed regarding their general word order preference and their sensitivity to the linguistic factors constraining word order in Spanish. Secondly, for the heritage speakers in particular, it was explored to what extent various factors related to the quality and quantity of input and output in the heritage language contributed to explaining individual differences between these speakers.

8.2.1. Comparing Groups

The adult version of the experiment included ratings on a Likert scale instead of a forced choice between the two word orders. The dependent variable was calculated by subtracting for each item the rating for the sentence with a preverbal subject from the rating for the sentence with the postverbal subject. This calculated value thus expresses a measure of relative preference for VS[11]. Given that this is a numerical variable, linear mixed effects models (lmer) were used instead of generalized mixed effects models (glmer). P-values were obtained using the Kenward–Roger approximation, as implemented in the pbkrtest package (Halekoh and Højsgaard 2014).

The monolingual adults, like the monolingual younger groups, showed significant knowledge of all three factors of interest (verb type: $\beta = 0.60$, $SE = 0.25$, $t = 2.36$, $p = 0.02$; focus: $\beta = 1.18$, $SE = 0.31$, $t = 3.87$, $p < 0.001$; definiteness: $\beta = 0.70$, $SE = 0.22$, $t = 3.13$, $p = 0.004$), in the expected direction and without any interactions between them. The model for the adult heritage speakers, on the other hand, included significant effects for verb type ($\beta = 0.78$, $SE = 0.31$, $t = 2.51$, $p = 0.02$) and focus ($\beta = 1.02$, $SE = 0.31$, $t = 3.28$, $p = 0.002$), but not for definiteness ($\beta = 0.32$, $SE = 0.31$, $t = 1.02$, $p = 0.31$). This means that the adult HSs rated VS significantly higher for unaccusative predicates compared to unergative predicates, as well as for narrow focus compared to broad focus, but their word order ratings did not differ significantly between definite and indefinite subjects. The effects for verb type, focus, and definiteness for both adult groups are illustrated in Figures 11–13, respectively.

As for general preferences for one order to the other, the intercept of the monolinguals' model was not significant ($\beta = 0.19$, $SE = 0.20$, $t = 0.97$, $p = 0.34$), indicating that these speakers did not rate one order significantly higher than the other across conditions. The adult heritage speakers, on the other hand, rated VS significantly higher than SV across the board, as indicated by the significant intercept in the model ($\beta = 0.79$, $SE = 0.19$, $t = 4.12$, $p < 0.001$).

An additional model was run on the data for the adult monolinguals and heritage speakers combined to check for quantitative differences between the groups. This model included the variable 'language' (monolingual vs heritage) in addition to verb type, focus and definiteness. There were significant effects for the intercept ($\beta = 0.38$, $SE = 0.15$, $t = 2.51$, $p = 0.02$), which indicated that all adult participants combined rated VS sentences significantly higher than SV sentences, and significant main effects for all three linguistic factors (verb type: $\beta = 0.66$, $SE = 0.23$, $t = 2.85$, $p = 0.006$; focus: $\beta = 1.0$, $SE = 0.25$, $t = 4.03$, $p < 0.001$; definiteness: $\beta = 0.56$, $SE = 0.23$, $t = 2.47$, $p = 0.02$), which means that both adult groups combined rated VS sentences relatively higher with unaccusative verbs compared to unergative verbs, in narrow focus compared to broad focus and with indefinite subjects compared to definite subjects. The model did not reveal any significant differences between the two groups: the main effect of group did not reach significance ($\beta = -0.39$, $SE = 0.24$, $t = -1.62$, $p = 0.11$), and neither did the interaction between language and definiteness ($\beta = 0.33$, $SE = 0.28$, $t = 1.19$, $p = 0.24$). The overall ratings for each group are shown in Figure 14.

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[11] This was done to keep the models as simple as possible. By reducing the number of variables in the model, we were able to avoid complex four-way interactions. While this calculated measure does not provide information about participants' absolute ratings for each of the two sentences, it does tell us whether they significantly distinguished between the two word orders (based on the linguistic factors of interest), which was the most relevant question for the purposes of this study.

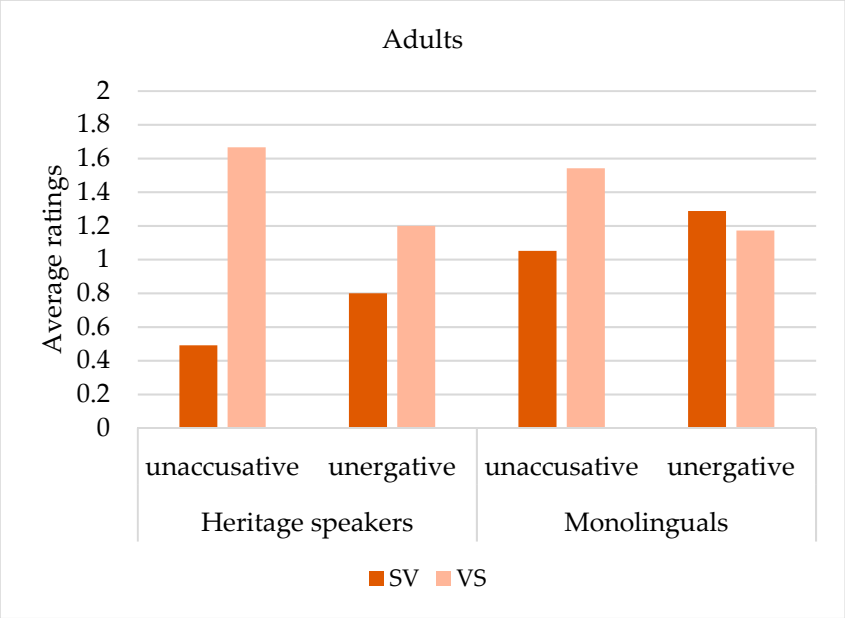

Figure 11. The effect of verb type in adult monolinguals and heritage speakers (average ratings).

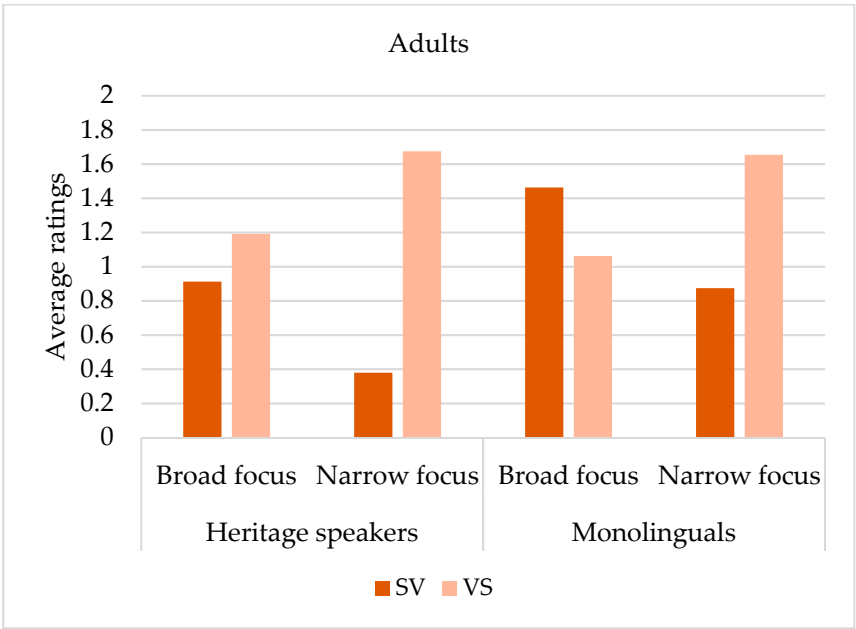

Figure 12. The effect of focus in adult monolinguals and heritage speakers (average ratings).

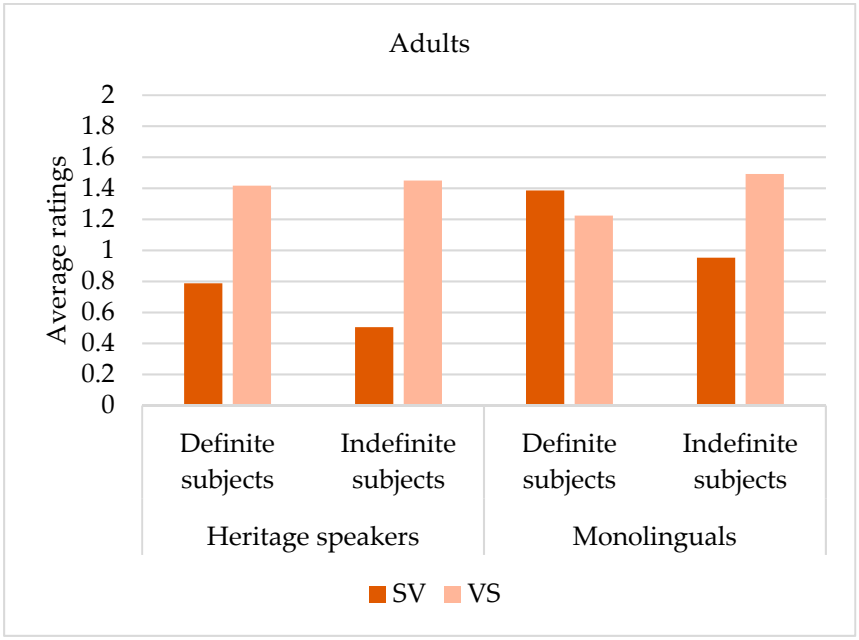

Figure 13. The effect of definiteness in adult monolinguals and heritage speakers (average ratings).

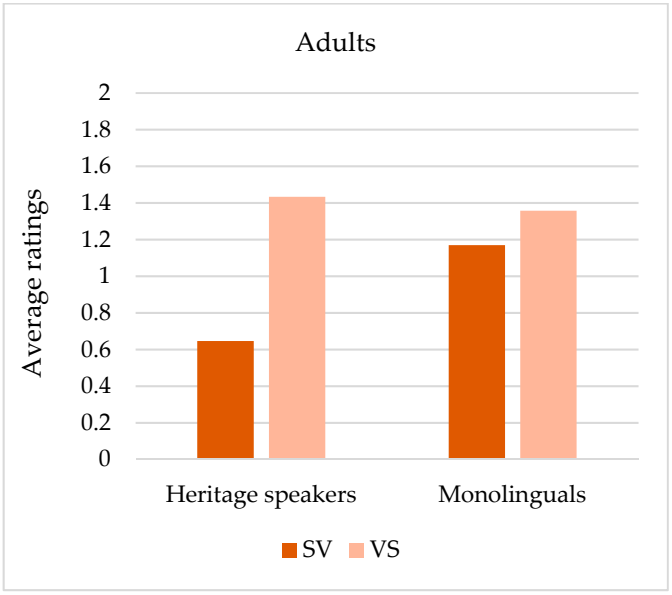

Figure 14. Average acceptability ratings for SV and VS word orders for adult heritage speakers and monolinguals (average ratings).

8.2.2. Exploring Individual Differences

To explore the role of various extraneous variables, the information obtained through the background questionnaire was used in another set of statistical analyses. Due to the high number of variables, three separate models were run on the data: one model including all input-related variables; a second one for various factors connected to language use, and a third model including a range of other variables such as instruction, length of residence of the parents, proficiency, and attitude. In all these models, the dependent variable was the relative preference for postverbal subjects, as calculated by subtracting the rating for the SV sentence from the rating for the VS sentence.

In the model about input quantity, the average amount of exposure to Spanish across age stages (0–5, 6–12, 13–18 and >18 years old) was a significant predictor for VS preference (β = −0.04,

$SE = 0.015$, $t = -2.44$, $p = 0.04$), which means that the more exposure to Spanish the participant had received throughout the life-span, the lower the relative preference for VS. The effect of the number of elder siblings was also significant ($\beta = -0.45$, $SE = 0.0.11$, $t = -3.98$, $p = 0.003$), indicating that the more elder siblings one had, the lower the relative preference for VS. The amount of months spent in Spanish-speaking countries, also affected the word order preference: the more time spent abroad, the lower the preference for VS ($\beta = -0.03$, $SE = 0.105$, $t = -2.29$, $p = 0.04$). The other variables—current exposure to spoken language at home and at work/study, as well as exposure through reading, TV/movies and music—were not significant. There were no interactions between any of the input-related variables and verb type, focus, or definiteness, which implies that it was not the case that more exposure led to better knowledge of these linguistic constraints.

The model including all variables related to language use rendered two significant effects: one of the average amount of use of Spanish throughout life, from age 5 to the moment of testing ($\beta = -0.03$, $SE = 0.01$, $t = -2.37$, $p = 0.02$) and one of current use at work and at home ($\beta = -0.03$, $SE = 0.01$, $t = -2.16$, $p = 0.04$). Both these effects show the same directionality: the more Spanish is/was spoken, the lower the preference for VS. The other variable related to language use—use in writing—was not significant. No significant interactions were found between any of the variables related to use with either verb type, focus, or definiteness, which means that it was not the case that the more the heritage language was used, the stronger the knowledge of these linguistic factors constraints.

The third model, including a range of other variables—age of onset, length of residence of the parents, sex, proficiency, formal instruction in Spanish, and attitudes toward the language – rendered no significant factors or interactions, indicating that these factors did not play a role in the adult HSs' relative preference for VS or their knowledge of the linguistic constraints on word order.

9. Discussion

This study explored the acquisition of word order in heritage speakers. Our first research objective was to describe how word order with intransitive verbs develops in child heritage speakers of Spanish in the Netherlands. In order to do so, we looked at heritage speakers' sensitivity to three linguistic constraints on word order—verb type, focus and definiteness—and their general preference for either preverbal or postverbal subjects across conditions.

9.1. Sensitivity to the Linguistic Constraints on Word Order

All three monolingual groups tested in this study (9-year-olds, 13-year-olds and adults) showed significant sensitivity to all three factors of relevance: verb type, focus and definiteness. The results for the monolingual groups are summarized in Table 1, with the significant effects in grey.

Table 1. Significance values for each factor per age group in monolinguals.

	9-Year-Old Monolinguals	13-Year-Old Monolinguals	Adult Monolinguals
Verb type	**$p = 0.003$**	**$p < 0.001$**	**$p = 0.02$**
Focus	**$p = 0.004$**	**$p < 0.001$**	**$p < 0.001$**
Definiteness	**$p < 0.001$**	**$p < 0.001$**	**$p = 0.004$**

We can thus assume that, at least by age 9, monolingual speakers of Spanish know that VS is relatively more felicitous with unaccusative verbs than with unergative verbs, more felicitous in narrow focus than in broad focus and more felicitous with indefinite subjects than with definite subjects. Exactly when this knowledge is acquired by monolingual children cannot be deduced based on the data presented here, but, as discussed in Section 5.2, the available research suggests that preschool children already distinguish between verb types, and possibly also between broad and narrow focus.

The data for the heritage speakers of the same ages showed quite a different picture. The 9-year-olds and the 13-year-olds were sensitive to verb type and definiteness, but not to focus; and the adults were

sensitive to verb type and focus, but not to definiteness.[12] The significant and non-significant effects for each age group are summarized in Table 2 below, with the significant effects in grey.

Table 2. Significance values for each factor per age group in heritage speakers.

	9-Year-Old Heritage Speakers	13-Year-Old Heritage Speakers	Adult Heritage Speakers
Verb type	$p < 0.001$	$p < 0.001$	$p = 0.02$
Focus	$p = 0.89$	$p = 0.18$	$p = 0.002$
Definiteness	$p = 0.03$	$p < 0.001$	$p = 0.31$

Interestingly, we see different patterns arise for the different linguistic factors. Verb type is the most stable factor of all. It is present in the heritage grammar at least by age 9 and it remains stable throughout adolescence and into adulthood. Focus and definiteness, on the other hand, are more vulnerable, although remarkably enough, the two factors exhibit distinct pathways. For focus, acquisition seems to be delayed. The heritage speakers in this study still do not show knowledge of this focus by age 13, while the monolingual baseline speakers already show sensitivity to this factor at age 9.[13] However, full mastery of focus appears to take time even in monolingual acquisition, as indicated by the significant interaction between age and focus in the model for the 9- and 13-year-olds. This interaction means that older children, whether they are monolingual or bilingual, are more sensitive to focus than younger children. So, although young monolingual children may already distinguish between broad and narrow focus, this knowledge grows stronger with age. In heritage speakers, the acquisition of focus progresses even more slowly: by age 13 they still do not significantly distinguish between broad and narrow focus. Nevertheless, the data from the adult heritage speakers suggest that the effect of focus on word order eventually does become part of their grammar.

Delayed acquisition of linguistic features is not commonly reported in the heritage language literature (Flores and Barbosa 2014), precisely because it cannot be identified by looking at adult heritage speakers alone. After all, if a certain structure is eventually acquired, no divergence will show up in adult heritage speakers, which might tempt one to conclude that the structure was acquired in an identical way (and at an identical pace) as in monolingual acquisition. In these cases, data on younger heritage speakers are crucial to uncover the reality that the acquisition path of heritage speakers actually differs from that of monolingual baseline speakers.

For the effect of definiteness, the opposite pattern arose: while the 9- and 13-year-old heritage speakers showed significant knowledge of the definiteness effect on word order, the same cannot be said for the adult heritage speakers. If the three groups in this study can be taken to represent actual development of the heritage language, this would imply that the effect of definiteness starts to weaken some time between age 13 and adulthood. This is later than what has generally been reported for attrition in heritage language acquisition studies. The longitudinal studies reporting attrition by Merino (1983); Anderson (1999) and Silva-Corvalán (2014, 2018) all cover the first years after children start primary school, a moment that often marks a shift in input in the societal language. However, this may not be the only moment in heritage speakers' lives at which a change in input occurs. In the Netherlands, most teenagers leave their parental home at age 17 or 18 when they start higher education. Assuming that the heritage language is (almost) exclusively spoken in the home, as is typically the case in the Netherlands, this moment marks a second drop in input in the heritage language. This could be one of the reasons why sensitivity to definiteness might weaken so late in life.

[12] The results for the adults were similar to the results reported in Van Osch and Sleeman (2018a).

[13] Some previous studies even suggest that monolingual children as young as 5 years old can already distinguish between broad and narrow focus (Pladevall-Ballester 2010; Villa-García and Suárez-Palma 2016).

9.2. General Word order Preferences

The second research question concerned word order preferences across the board. Here too, interesting differences between monolinguals and heritage speakers were observed. The monolingual 9-year-olds showed a general preference for SV, conform Villa-García (Villa-García and Suárez-Palma 2016), but contra Villa-García and Suárez-Palma (2016) and Friedmann and Costa (2011). However, by age 13, this preference has diminished. Neither the 13-year-old- nor the adult monolinguals significantly preferred one order to the other. If we assume that the data from the different groups in this study can be taken to reflect actual development, this would mean that monolingual children acquiring Spanish gradually use relatively less SV word orders as they grow older.

The heritage speakers' data revealed a different development. While the 9-year-old and 13-year-old heritage speakers did not show a significant preference, the adult heritage speakers rated VS significantly higher than SV. This pattern suggests that heritage speakers, like monolinguals, increase their relative preference for VS with age. The word order preferences for all groups are summarized in Table 3.

Table 3. Significant general word order preference for all groups.

	9-Year-Olds	**13-Year-Olds**	**Adults**
Monolinguals	SV	No preference	No preference
Heritage speakers	No preference	No preference	VS

Although both monolingual and heritage speakers increase their relative preference for VS with age, on the whole, heritage speakers prefer VS to a greater extent than monolingual speakers, as indicated by the significant effects of language in the model for the children, as well as in the model for the adults' ratings on sentences with SV. This increased preference for postverbal subjects may seem puzzling at first glance, given the well-documented overuse of SV in English-dominant heritage speakers of Spanish (e.g., Silva-Corvalán 1993, 2001; Hinch Nava 2007; Montrul 2005). However, as suggested in Van Osch and Sleeman (2018a), this may be attributable to the relatively frequent occurrence of postverbal subjects in Dutch due to the V2 rule described in Section 4.

9.3. Explaining the Observed Patterns

The second aim of this paper was to account for the attested divergence. Section 6 presented several hypothetical scenarios that may describe heritage language development. Interestingly, the data presented here provide support for various different scenarios depending on the element of knowledge we are looking at. For the knowledge of verb type, heritage speakers of all ages resembled their monolingual peers, corresponding to H1, or typical monolingual-like development, at least from age 9 onwards. For focus, the adult heritage speakers were similar to their monolingual peers, while the two adolescent heritage speaker groups were not, corresponding to H3b and suggesting delayed acquisition. For definiteness, it was shown that younger heritage speakers resembled their age-matched monolingual peers, while the adult heritage speakers did not. This is in line with H2, suggesting attrition or reanalysis.

In the introduction of this paper, two possible origins for divergence were discussed: quantitatively different (reduced) input in the heritage language, and qualitatively different input. We think that the attested patterns for focus (delayed acquisition) and definiteness (attrition) are most likely the result of changes in input quantity, rather than quality. After all, if the effects of focus and/or definiteness would somehow not be instantiated in the input heritage speakers receive (for instance due to attrition in the first generation), we would not expect focus to be eventually acquired, and we would not expect definiteness to be initially present in the heritage grammar. We would simply not find evidence for knowledge of these factors in any of the age groups. On the other hand, if we consider a scenario in which the input is not qualitatively different, but drastically reduced, these findings make much more sense. Assuming that all linguistic constructions require a certain critical mass of input for children to

acquire them, it is not surprising that full, monolingual-like acquisition of the same structures takes even longer in cases where the input is reduced to half (or even less) of the input that monolingual children receive. This explains the delay in acquisition of focus. As mentioned above, the loss of sensitivity to definiteness could also be explained by reduced input in the heritage language, and increased input in the societal language, particularly from the moment heritage speakers leave their parental home.

But how can we account for the relatively robust nature of verb type? Unlike focus and definiteness, this factor is acquired early and remains stable throughout adulthood. This may be due to differences in linguistic properties. Verb type lies at an internal interface between syntax and semantics, which might make it more resilient in language contact situations than focus and definiteness, which arguably pertain to the external interface between syntax and discourse, an often assumed locus of particular vulnerability in bilingual populations (e.g., Sorace 2011; van Osch 2019)

While this may explain why focus and definiteness are more vulnerable than verb type, what still remains to be resolved is why we see distinct pathways for focus and definiteness. Whereas focus is eventually acquired (rather than lost), definiteness is acquired earlier but is not maintained into adulthood. The finding that different linguistic structures can have different developmental pathways in heritage language acquisition is not unique to this study. As described in Section 2, previous studies have provided evidence for language loss for some structures, arrested or delayed development for others, and qualitative input effects for yet others. The specific way in which a given structure is affected in situations of language contact probably depends on several factors, such as the age and timing of acquisition of the structure in monolingual speakers (Tsimpli 2014), evidence for the structure in the input (O'Grady et al. 2011), and possibilities for transfer from the dominant language, just to name a few. More studies are needed to map how these and other factors interplay in heritage language acquisition.

When it comes to general word order preferences in the heritage speakers, we see that all heritage speaker groups relatively preferred VS more than their baseline peers, corresponding to H4. One possible explanation for this is that the input provided to the heritage speakers by their parents is qualitatively different: it may be the case that first-generation immigrants exhibit a higher amount of VS sentences as a result of prolonged contact with Dutch. Conversely, it may also be an effect of reduced input in the heritage language and increased exposure to the dominant language in the heritage speakers themselves. One way to distinguish between these possibilities is to compare individual heritage speakers to one another and see whether inter-speaker variation is explained better by factors related to input quantity, or input quality, or possibly other variables[14]. Recent research (e.g., Bayram et al. 2017; Kaltsa et al. 2019) has demonstrated this to be a fruitful approach in explaining divergence in heritage speakers. Fortunately, the detailed information obtained through the extensive background questionnaire for the adult heritage speakers enabled us to explore the role that various variables related to input and use play in explaining individual differences. The explorative analysis presented in Section 8.2.2. seems to suggest that heritage speakers' increased preference for VS correlates with the quantity of input and output of Spanish, rather than the quality of that input. The more Spanish the participants had heard at home, and the more months they had spent abroad, the less they preferred VS, and thus the more they resembled monolinguals. Surprisingly, the more elder siblings participants had, the less they preferred VS. This means that participants with many elder siblings resembled monolinguals more than those who had few elder siblings, contradicting reports from previous research that elder siblings tend to be most proficient in the heritage language (e.g., Shin 2002). This birth-order effect is usually explained by the assumption that the older siblings tend to speak the societal language to their younger siblings, who, therefore, receive relatively less input. However, it is possible that the heritage speakers in the present study spoke Spanish, not Dutch, with their older siblings, in which case having more elder siblings would lead to more input in Spanish.

[14] We thank an anonymous reviewer for this suggestion.

Unfortunately, the questionnaire did not ask which language was used with siblings. This is worth exploring further in future research.

Output in the heritage language, both throughout their lives and at the time of testing, was also found to play a role, which is in line with recent studies such as Kaltsa et al. (2019) and Sánchez et al. (forthcoming). On the other hand, the total time that the heritage speakers' parents had spent in the Netherlands, which might be an indicator of possible attrition in their L1 and thus of input quality effects, was not a significant predictor for the heritage speakers' VS preference. Of course, to be able to draw strong conclusions about the possible effects of attrition in the input, first-generation speakers, preferably the actual parents of the heritage speakers themselves, should be tested. The analysis described here may be considered a first exploration which needs to be corroborated by future research.

9.4. Limitations

Like most exploratory studies, this study does not come without its limitations. First of all, it is important to keep in mind that our study combined data from two different experiments, which were similar in design, but not identical. The reason is that for the comparison with the adult group we used a subset of previously gathered data, which was collected with different research questions in mind. One difference between the two experiments regards the number of items per condition, which was three in the task for the adults and four in the children's experiment. Moreover, the specific verbs used in the two tasks were not exactly the same. Another difference concerns the dependent variable, which was a forced choice in the case of the children's experiment, and ratings on a Likert scale in the adults' experiment. We considered recoding the adult responses into either SV or VS, depending on which of the two was rated highest, but the consequence would be that any responses in which both options were rated equally (about 15% of all cases), would be lost. Moreover, even if the adult task had categorical responses, we would still not be able to compare the two tasks in a single statistical model, because the stimuli were not identical. For these reasons, the conclusions drawn from the comparison between child and adult heritage speakers should be taken with a grain of salt. In future studies, we would like to apply a single task for the different age groups to increase internal validity. We also want to emphasize that the results presented here cover a limited age range; we do not know how the heritage language develops before age 9.[15] Given that the onset of formal education marks an important moment in which drastic changes in the input are likely to occur, it is recommended that future research takes into account younger speakers as well.

A final consideration is that, even though the underlying assumption in cross-sectional designs is that different age groups represent different moments in the development of a certain population, in reality, the groups contain different people, who may differ on several respects other than their age at the time of testing. Ideally, studies investigating the development of language should include a longitudinal element, following the same participants throughout their lives.

10. Conclusions

The study reported in this paper was intended to explore the development of word order in heritage speakers of Spanish in the Netherlands. The data provide tentative evidence for various different processes, namely monolingual-like acquisition, delayed acquisition, and attrition, all occurring within a single phenomenon. We have argued that these processes can most likely be traced back to reduced input and use of the heritage language, alongside an increase of input and use in the majority language. Crucially, these processes could not have been exposed without the inclusion of data from younger heritage speakers. The findings, therefore, underscore that in order to obtain a complete view of

[15] The original study (van Osch et al.) did include a group of 5-year-old heritage speakers. Given that the experimental design of that study differed substantially from the ones presented here (i.e., there was no control group, and definiteness was not tested) the results are not reported in detail. However, it is worth mentioning that these 5-year old heritage speakers did not show knowledge of either verb type or focus, and they did not significantly prefer one order to the other.

heritage language acquisition, data from this very much-understudied population of school-age heritage speakers are imperative. Especially longitudinal data in this age-range are very much needed. We will be pursuing this line of research further in future research and would like to encourage other researchers to do the same.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Items 9- and 13-Year-Olds

ITEM	CONTEXT	SENTENCES
	UNACCUSATIVE VERBS — BROAD FOCUS — DEFINITE SUBJECTS	
1	Un grupo de animales corre la maratón. El pato está a punto de ganar, pero se cae antes de llegar a la meta. ¿Qué pasó?	El pato se cayó.
		Se cayó el pato.
2	El perro se ha portado mal y su amo le ha hecho quedarse en el jardín. Pero su amo se siente mal y al final le deja pasar a la casa. ¿Qué pasó?	El perro entró.
		Entró el perro.
3	María se ha ido de vacaciones a Madrid. Cuando llega al hotel, abre la maleta y se encuentra a su perro que sale rápidamente a darle un lametazo. ¿Qué pasó?	El perro salió.
		Salió el perro.
4	Tres perritos están jugando en la playa y se están divirtiendo mucho. Mientras juegan, se ve llegar a su amigo el gato, muy triste porque no lo habían avisado. ¿Qué pasó?	El gato llegó.
		Llegó el gato.
	UNACCUSATIVE VERBS — BROAD FOCUS — INDEFINITE SUBJECTS	
5	Acaba de nevar. Unos animalitos están jugando en la nieve a construir estatuas de hielo, pero todo es muy resbaladizo y un oso acaba en el suelo. ¿Qué pasó?	Un oso se cayó.
		Se cayó un oso.
6	María tiene un gato para protegerse de los ratones, porque le dan mucho miedo. Pero hay un agujero en la casa por el que un ratón se cuela. ¿Qué pasó?	Un ratón entró.
		Entró un ratón.
7	A Luisa le encantan los pájaros. Siempre les da de comer cuando llega del colegio, pero hoy se encuentra la jaula abierta. ¿Qué pasó?	Un pájaro salió.
		Salió un pájaro.
8	Dos conejitos están haciendo un examen en la escuela, pero no saben las respuestas y deciden copiar. Se oye a alguien llegar. Es un profesor, que los pilla copiando. ¿Qué pasó?	Un conejito llegó.
		Llegó un conejito.
	UNACCUSATIVE VERBS — NARROW FOCUS — DEFINITE SUBJECTS	
9	Es día de limpieza en casa y todos los animalitos tienen que limpiar. El gato que es un poco torpe se tropieza con la fregona y lo moja todo. ¿Quién se cayó?	El gato se cayó.
		Se cayó el gato.
10	El oso y sus amigos van de excursión al lago. Hay muchas olas y todos les da miedo meterse en agua. Pero el oso es el más valiente del grupo. ¿Quién entró?	El oso entró.
		Entró el oso.

11	El gato y los ratones siempre se están al escondite. A los ratones les encanta, pero el gato está ya cansado decide salir a explorar y se encuentra un concierto callejero. ¿Quién salió?	El gato salió.
		Salió el gato.
12	Todos los animales han ido de excursión a la granja. El toro, que había perdido el autobús, consigue llegar después de dos horas. ¿Quién llegó?	EL toro llegó.
		Llegó el toro.
UNACCUSATIVE VERBS — NARROW FOCUS — INDEFINITE SUBJECTS		
13	Hay una carrera de perros y lobos en la playa. Justo cuando está a punto de ganar, un perro se resbala y acaba en el agua. ¿Quién se cayó?	Un perro se cayó.
		Se cayó un perro.
14	El lobo y sus amigos celebran una fiesta en una cabaña en las montañas. EL guardia forestal les avisa del peligro de osos, pero no le hacen caso. Por la mañana, se encuentran un oso en la cocina. ¿Quién entró?	Un oso entró.
		Entró un oso.
15	Unos amigos han ido a ver un festival acuático. Hay peces, tortugas y toda clase de animales. De repente, se ve salir del agua a un delfín. Es precioso. ¿Quién salió?	Un delfín salió.
		Salió un delfín.
16	Se celebra una gran fiesta de cumpleaños. Todos los invitados han llegado, pero de repente llaman a la puerta. Es un mono al que nadie había invitado. ¿Quién llegó?	Un mono llegó.
		Llegó un mono.
UNERGATIVE VERBS — BROAD FOCUS — DEFINITE SUBJECTS		
17	La rana llega tarde al trabajo. En el camino se encuentra un gran charco imposible de cruzar. La única manera de cruzarlo es dando un buen salto. ¿Qué pasó?	La rana saltó.
		Saltó La rana.
18	Ha llegado la mañana y es hora de ir al colegio. Todos los animales están durmiendo todavía y el gallo tiene que silbar para despertarlos. ¿Qué pasó?	El gallo silbó.
		Silbó el gallo.
19	El oso está explicando una lección en la escuela, pero nadie está escuchando. El oso se cansa y se da un grito a toda la clase. ¿Qué pasó?	El oso gritó.
		Gritó el oso.
20	El perro se encuentra unas galletas recién hechas. Son deliciosas y se las come todas. Cuando su amo lo ve, se enfada mucho y regaña al perro, que se siente muy mal y se echa a llorar. ¿Qué pasó?	El perro lloró.
		Lloró el perro.
UNERGATIVE VERBS — BROAD FOCUS — INDEFINITE SUBJECTS		
21	Unos gatos están jugando a saltar. Uno de los gatos quiere ganar haciendo algo muy atrevido y da un gran salto por encima de su amigo. ¿Qué pasó?	Un gato saltó.
		Saltó un gato.

22	El león y el tigre caminan por la selva. Creen que no tienen de qué preocuparse, pero a lo lejos se oye el silbido de una serpiente que está vigilando. ¿Qué pasó?	Una serpiente silbó.
		Silbó una serpiente.
23	Un grupo de lobos está explorando el bosque. Todo está muy oscuro y silencioso. De repente se oye un grito. Uno de los lobos ha pisado una rana. ¿Qué pasó?	Una rana gritó.
		Gritó una rana.
24	Un grupo de animales ha ido al cine a ver una película de terror. A mitad de la película sale un monstruo aterrador y de repente se oye un gato asustado que llora. ¿Qué pasó?	Un gato lloró.
		Lloró un gato.
UNERGATIVE VERBS — NARROW FOCUS — DEFINITE SUBJECTS		
25	Hay un concurso de saltos en la granja. Hay tres finalistas, pero dos de ellos se han torcido un tobillo y solo queda el caballo. ¿Quién saltó?	El caballo saltó.
		Saltó el caballo.
26	El mono llega tarde a su cita con el león. Se da mucha prisa para llegar. Pero ve a lo lejos que el león se está marchando, así que se empieza silbar para llamar su atención. ¿Quién silbó?	El mono silbó.
		Silbó el mono.
27	La cebra y la jirafa están descansando. La cebra se asusta y grita porque cree ver un león a lo lejos. Pero la jirafa le dice que es solo un gatito. ¿Quién gritó?	La cebra gritó.
		Gritó la cebra.
28	Ha llegado el invierno y el zoo va a cerrar por vacaciones. Muchos animales vuelven a sus hogares. El mono se pone muy triste porque no podrá ver a sus amigos en varios meses y se pone a llorar. ¿Quién lloró?	El mono lloró.
		Lloró el mono.
UNERGATIVE VERBS — NARROW FOCUS — INDEFINITE SUBJECTS		
29	Ha llegado el final de curso en la granja. Mientras todos los animales se van a casa en el autobús escolar, una oveja se va a pasear por el bosque dando saltos de alegría. ¿Quién saltó?	Una oveja saltó.
		Saltó una oveja.
30	Los pájaros están de celebración porque han nacido unos pollitos. Son muy pequeñitos y están todos dormidos. De repente un pollito abre el pico y se pone a silbar. ¿Quién silbó?	Un pollito silbó.
		Silbó un pollito.
31	Unas gallinas han ido a una feria. De repente se oyen unos gritos y alguien les dice que un mono era un mono que estaba llamando a su mamá. ¿Quién gritó?	Un mono gritó.
		Gritó un mono.
32	Unos animalitos están de paseo por la ciudad. A lo lejos, en un callejón se oye llorar a alguien. Es un cachorro que ha perdido a su mamá y no sabe dónde buscar. ¿Quién lloró?	Un cachorro lloró.
		Lloró un cachorro.

Appendix B. Items Adults

ITEM	CONTEXT	SENTENCES
	UNACCUSATIVE VERBS — BROAD FOCUS — DEFINITE SUBJECTS	
1	La familia Rodríguez tiene una cena en casa. El señor Rodríguez y su hija Susana se ponen a pelear por una estupidez. Susana se enoja mucho y se va. Su hermano José, que llega tarde a la cena, ve la silla vacía de Susana y pregunta: "¿Qué pasó?" El papá, que no quiere contar los detalles, simplemente contesta:	Susana se fue. Se fue Susana.
2	Te vas de viaje a la playa con unos amigos. Tu amigo Juan invita a su novia Margarita en el último minuto. Como no habrá suficiente espacio en el coche decides llevar tu coche también. Tu amigo Pablo es el último que llega. Pablo ve los dos coches y pregunta: "¿Qué pasó?" Tú contestas:	Margarita llegó. Necesitamos un coche extra. Llegó Margarita. Necesitamos un coche extra.
3	Mi compañero de casa, Pepe, nunca quiere que haya fiesta en nuestra casa. Este fin de semana se fue de vacaciones. Yo aproveché y planeé una fiesta para el sábado, pero el sábado en la mañana veo que Pepe ha regresado inesperadamente. Tengo que cancelar la fiesta. Hablando con mi mamá, me nota un poco malhumorado, así que me pregunta: "¿Qué pasó?" Le contesto:	Mi compañero regresó. Tuve que cancelar la fiesta. Regresó mi compañero. Tuve que cancelar la fiesta.
	UNACCUSATIVE VERBS — BROAD FOCUS — INDEFINITE SUBJECTS	
4	Ayer hubo un robo en el banco donde trabajo. Fue un susto increíble, pero todo salió bien. Hoy me llama mi amigo José porque ha escuchado la noticia sobre el robo. Me pregunta: "¿Qué pasó en el banco?" Empiezo a contar:	De repente, un ladrón entró. De repente, entró un ladrón.
5	Tu compañero de casa, Felipe, ha estado fuera todo el día con un amigo que está de visita. La mamá de Felipe llama a la casa para preguntar por su hijo, porque no contesta su móvil y está preocupada. Te pregunta: "¿Qué pasó?" Le contestas:	Un amigo vino. Los dos se fueron a pasear. Vino un amigo. Los dos se fueron a pasear.
6	Un tío mío fue a caminar sólo en el bosque el viernes pasado y nunca volvió a casa. Estamos todos muy preocupados. Mi amiga, que me nota muy mal, me pregunta: "¿Qué pasó?" Le contesto:	Un tío mío desapareció. Desapareció un tío mío.
	UNACCUSATIVE VERBS — NARROW FOCUS — DEFINITE SUBJECTS	
7	Estás jugando a cartas con tus amigos. Tu hermana reparte las cartas y después sale al baño. Mientras está en el baño, tu prima Gabina se despide y se va a casa. Cuando tu hermana regresa ve una silla vacía y pregunta: "¿Quién se fue?" Tú contestas:	Gabina se fue. Se fue Gabina.
8	Ayer salí con amigos. Éramos cinco personas. Íbamos a ir a una fiesta exclusiva en un club donde trabaja un amigo mío. Mi amigo me había dicho que nos había puesto en la lista de invitados. Pero cuando llegamos resultó que sólo había puesto a cuatro personas, en vez de a cinco. No podíamos entrar todos. Contando la historia a mi novia, me pregunta: "¿Y quién regresó?" Yo contesto:	Todos regresamos. Nos tomamos algo en casa. Regresamos todos. Nos tomamos algo en casa.
9	La familia García recibió una carta. Por el sobre pueden ver que es una esquela mortuoria, informando el fallecimiento de alguien. El señor García abre el sobre. Su esposa pregunta: "¿Quién se murió?" El señor García contesta:	Mi tío abuelo se murió. Se murió mi tío abuelo.

UNACCUSATIVE VERBS — NARROW FOCUS — INDEFINITE SUBJECTS		
10	Roberto es director de una prisión. Hace poco, su amigo Pedro ha escuchado en la radio que un prisionero logró escaparse, pero no sabe quién exactamente. Le pregunta a Roberto: "¿Quién se escapó?" Roberto contesta:	Un mafioso mexicano se escapó.
		Se escapó un mafioso mexicano.
11	Es mi cumpleaños y hay mucha gente de visita en mi casa. De repente suena el timbre, pero como justo estoy recibiendo un regalo de mi tío, no puedo abrir la puerta. Va mi esposa. Cuando regresa, le pregunto: "Quién llegó?" Mi esposa me dice:	Unos primos llegaron. Están en la cocina.
		Llegaron unos primos. Están en la cocina.
12	Mi hermana y yo trabajamos en un hotel. Yo soy cocinero y ella es recepcionista. De repente me doy cuenta que mis compañeros en la cocina están emocionados por la llegada de alguien importante, pero no me entero quién es. Le mando un mensaje a mi hermana preguntándole: "¿Quién entró?" Mi hermana me contesta:	Una actriz famosa entró. Yo no la conozco.
		Entró una actriz famosa. Yo no la conozco.
UNERGATIVE VERBS — BROAD FOCUS — DEFINITE SUBJECTS		
13	Claudia y Valeria, dos hermanas, están en una fiesta de su colegio. En un momento, su profesor se pone a bailar, lo que les parece muy chistoso. Llegando a casa, siguen muertas de la risa. Su padre quiere saber qué es tan chistoso, y pregunta: "¿Qué pasó?" Claudia contesta:	Nuestro profesor bailó.
		Bailó nuestro profesor.
14	Mi abuelo tiene noventa años. Pasa la mayoría del tiempo sentado en una silla. No se mueve casi nunca. Hoy estamos en el jardín, en una reunión familiar y mi hija de 3 años quiere jugar con su bisabuelo. Para gran sorpresa de todos, mi abuelo se para y hasta corre hacia mi hija. Todos quedamos boquiabiertos. Mi tío, que justo llega a la casa, pregunta: "¿Qué pasó?" Le contesto:	¡Mi abuelo corrió!
		¡Corrió mi abuelo!
15	Marco está viendo un partido de básquetbol con un grupo de amigos. Durante el medio tiempo de repente se para y corre hacia afuera. Sus amigos están confundidos. Cuando regresa, le preguntan: "¿Qué pasó?" Les contesta:	Mi mamá llamó.
		Llamó mi mamá.
UNERGATIVE VERBS — BROAD FOCUS — INDEFINITE SUBJECTS		
16	Estoy muy cansado y quiero tomar una siesta, pero después de cinco minutos me despierta el llanto de un niño en la calle. Como ya no puedo dormir me levanto. Mi esposa se sorprende de verme levantado tan rápido y me pregunta: "¿Qué pasó?" Le contesto:	Un niño lloró en la calle. Ya no pude dormir más.
		Lloró un niño en la calle. Ya no pude dormir más.
17	David está en el cuarto grado de la primaria. Hoy los alumnos están muy rebeldes. El profesor dice: 'Si oigo un murmullo, todos se quedan castigados.' Desafortunadamente, un niño no se aguanta y empieza a reír. Cuando David llega a casa muy tarde, le cuenta a su mamá que toda la clase se quedó castigada por culpa de un solo niño. Su mamá le pregunta: "¿Qué pasó?" David dice:	Un compañero se rio.
		Se rio un compañero.
18	Estoy solo en un centro comercial. Estoy hablando por teléfono con un amigo. De repente escucho un canto detrás mío. Es una mujer que parece un poco loca. Interrumpo a mi amigo y le pregunto: '¿Oíste?' Me contesta: "No, ¿qué pasó?" Le digo:	Una mujer cantó.
		Cantó una mujer.

UNERGATIVE VERBS — NARROW FOCUS — DEFINITE SUBJECTS		
19	Estoy en la sala de mi casa con un amigo y de repente se escucha al vecino gritar muy fuerte. Mi amigo me pregunta: "¿Quién gritó?" Le contesto:	El vecino gritó.
		Gritó el vecino.
20	Nicolás y Juan Pablo viven juntos. Su casa siempre está muy sucia porque los dos no son muy ordenados. En la mañana, Juan Pablo va a la universidad. En la tarde llega la mamá de Nicolás y limpia toda la casa. Regresando a casa, Juan Pablo le pregunta a Nicolás: "¿Quién limpió?" Nicolás contesta:	Mi mamá limpió.
		Limpió mi mamá.
21	Natalia está en una clase de física. Todo el mundo está callado mientras el profesor explica la lección, pero de repente se escucha a alguien riéndose. Es su compañera Paulina, que siempre se ríe mucho. El profesor no ve quién ha reído, así que pregunta: "¿Quién se rio?" Natalia contesta:	Paulina se rio.
		Se rio Paulina.
UNERGATIVE VERBS — NARROW FOCUS — INDEFINITE SUBJECTS		
22	Estoy en una boda con mi novia. Durante la fiesta, varios familiares de los novios cantan canciones para la pareja. En un momento, mi novia recibe una llamada importante y sale para hablar. Justo en ese momento, una hermana de la novia se sube al escenario y canta una canción increíble. Cuando vuelve mi novia me pregunta: "¿Quién cantó?" Le contesto:	Una hermana de la novia cantó. Era muy bonito.
		Cantó una hermana de la novia. Era muy bonito.
23	Julieta está viendo una película en casa. Sus tres hijos están en cama. Ya les ha dicho que tienen que estar callados, pero están un poco rebeldes. Julieta escucha a alguien gritar de nuevo. Sube al cuarto y, enojada, pregunta: "¿Quién gritó?" El más atrevido de sus hijos contesta:	Un fantasma gritó, mamá.
		Gritó un fantasma, mamá.
24	Ayer fui a una noche de micrófono abierto. Yo toqué algunas canciones, y después de mi se subió un cubano al escenario y empezó a tocar la guitarra. Regresando a casa le cuento a mi novia que toqué. Me pregunta: "¿Quién más tocó?" Le contesto:	Un guitarrista cubano tocó.
		Tocó un guitarrista cubano.

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