Spring 5-1-2009

Spanish Language Acquisition: Gender-Marking Parameter

Marissa T.Y.O Kanemura

Introduction

The Spanish language, similar to many other languages, has two genders, commonly referred to as masculine and feminine. It has been proposed that this gender marking of all nouns is the value of a parameter of variation allowed by Universal Grammar, such that those languages that have this value of the parameter show gender marking, and those that have the other value of this parameter, like English, do not. Spanish nouns that refer to animate subjects, like *doctor* 'doctor' or *professor* 'professor', are straightforward in the sense that the gender agreement relies on the sex of the referent. These cases are going to be ignored during this study.

In other cases, the gender of a noun is referentially arbitrary, as for *mesa* 'table' and *papel* 'paper', which refer to objects that have no apparent sex. The assignment of gender to nouns can either be attributed to the history of the word or is, as noted, simply arbitrary. It is unlikely that speakers, especially native (L1) speakers, can correctly identify the gender of a noun because of their knowledge of the word's unique historical origin. Therefore, it is appropriate to assume that when native speakers can correctly identify whether a noun is masculine or feminine, the knowledge, and the need for gender in the first place, must stem from their linguistic experience. The gender agreement in Spanish is realized at the surface in the determiners (articles) and the adjectives accompanying the nouns. For example, in the noun phrase, *una mesa roja* 'a red table', the feminine forms of both the indefinite article and 'red' are used since *mesa* is feminine,

whereas in *el papel rojo* 'the red paper', the masculine forms of the definite article and 'red' are used since *papel* is marked as masculine.

Although the assignment of gender is primarily arbitrary, there are linguistic patterns that are especially helpful to those at the beginning of their process in learning and acquiring Spanish as a second language (L2 speakers). In general, nouns that end in '*-a*', '*-tad/-dad'*, or '*-ción*' are feminine and those that end in '*-o*' are commonly masculine. It is to be assumed in this study that knowledge of these patterns is a basic minimal standard to be considered an L2 speaker of Spanish. Nouns with these endings can also be referred to as overtly marked. There are exceptions to these overt markings as seen in the nouns *problema* 'problem' and *día* 'day', which are masculine in spite of the '*-a*' ending, and *mano*, which is feminine in spite of its '*-o*' ending. These words have been referred to as 'deceptively marked' (Alarcón 2000). From here on, I will primarily refer to the masculine and feminine aspect of nouns as features of a gender-marking parameter value and identify nouns as having a [+masc] feature (masculine) or a [-masc] feature (feminine).

Review of Literature

The gender-marking parameter is part of the principles-and-parameters framework Noam Chomsky has formulated for Universal Grammar. The framework is also referred to as a system of network-and-switches. Parameters or 'switches' restrict the number of possible grammars of all languages in Universal Grammar (to avoid the possibility of there being an infinite set of languages,

Deleted: The gender-marking parameter is part of the principles-and-parameters framework Noam Chomsky has formulated for Universal Grammar. The framework is also referred to as a system of network-and-switches. Parameters or 'switches' restrict the number of possible grammars of all languages in Universal Grammar (to avoid the possibility of there being an infinite set of languages, which we do not see in reality). During child language acquisition, children set each 'switch' to 'on' or 'off' in accordance with their linguistic input. For example, a child learning Spanish as his or her first language will set the gender-marking 'switch' to on because of the linguistic input of Spanish he or she receives. (Bhatia, Ritchie)

which we do not see in reality). During child language acquisition, children set each 'switch' to 'on' or 'off' in accordance with their linguistic input. For example, a child learning Spanish as his or her first language will set the gender-marking 'switch' to 'on' because of the linguistic input of Spanish he or she receives. (Bhatia and Ritchie 1999)

In studies of child L1 speakers of French, another Romance language with the gender-marking value of the parameter, children have been found to make very few errors in choosing an appropriate determiner (*le* [+masc] or *la* [-masc]) for a given set of nouns (Clark 1985 cited in Hawkins 2001). The more interesting case is that when given nonsense words, these children again made few errors in choosing an appropriate determiner. It has been concluded from the study that the gender feature of a noun must be satisfied since children could have easily used either a default determiner or no determiner at all (Karmiloff-Smith 1979 cited in Hawkins). Therefore, L1 French speakers, at a very early age, seem to acquire the gender-marking value of the parameter in an accurate and useful manner. These studies of child L1 French speakers show that the linguistic knowledge of a speaker acquiring his or her first language is not solely based on the input and language experience and thus provide evidence for the theory of Universal Grammar. On the other hand, it is possible that these children were able to properly assign gender to these nonsense nouns by analogy to nouns that had similar patterned word endings.

Deleted: comparing them

Deleted: word

In a case study of Anthony, a 12-year-old L1 English speaker with 2 years of immersion with Spanish speakers in Puerto Rico, Andersen (1984) found that

Anthony used *la*, the [-masc] definite article, for all definite articles and *un*, the [+masc] indefinite article, for all indefinite articles. The only distinction Anthony essentially made with articles (and therefore the nouns themselves) was that between indefinite and definite, just as English does. It was thus concluded that Anthony did not acquire any kind of gender distinction, most likely attributed to the fact that English does not have the gender-marking value of the relevant parameter – the value that marks nouns as either [+masc] or [-masc]. (Hawkins 2001)

Roger Hawkins conducted a study of ten college students who had had enough exposure to French that they were considered to be in their last stages of acquiring French as their second language. Through speech samples produced by the participants, Hawkins found individuals who overgeneralized one gendered determiner over the other for both indefinite and definite articles, similar to, but not as drastic as, Anthony's performance (which is not surprising if exposure is positively correlated with performance). For example, with definite articles, L2 French speaker A (L2-A) overgeneralizes the [+masc] form, while L2 speaker B (L2-B) overgeneralizes the [-masc] feature:

Table 1.1 Example of overgeneralization

L1 (native)	L2-A	L2-B
le bois, 'the wood'	*le bois*	*le bois*
le village, 'the village'	*le village*	*la village*
la ville, 'the town'	*le ville*	*la ville*
la foret, 'the forest'	*la foret*	*la foret*

(Hawkins, 2001)

Hawkins describes the *la* form of L2-A and the *le* form of L2-B as the 'target-like form', and the other article (*le* for L2-A and *la* for L2-B) as the 'overgeneralized

form' (or default form). It is suggested by the results that when L2 speakers are unsure of the gender of a noun, they apply their default form. Since speakers didn't necessarily have the same default gender for both indefinite and definite articles, and since speakers as a whole did not default the same gender, it was concluded that L2 French speakers do not have the need and skill to satisfy the gender agreement between the determiner and the noun and therefore have not fully acquired the gender-marking value of the parameter that L1 speakers have. (Hawkins 2001)

As an offshoot to these studies, I decided to examine and confirm them using adult L1 and L2 Spanish speakers. Firstly, I chose adult L1 Spanish speakers to confirm the results in the studies of child L1 French speakers who made very few errors in identifying gender features of nouns. Secondly, I chose adult L2 Spanish speakers to determine performance behaviors similar to those produced by Hawkins' L2 French speakers, namely overgeneralization. Using a corpus (Davies 2002) to determine frequencies of nouns, I wanted to examine the effect of frequency on performance of both L1 and L2 speakers, assuming L1 speakers make some mistakes. If mistakes or certain behavioral patterns cannot be explained solely by frequency, then I want to be able to attribute behaviors to ones similar to those exhibited by L2 French speakers, or by some other means. So as not to merely copy previous studies, I incorporated derivational morphology by including noun stems and nouns derived from those stems to further examine native speakers' intuitions and also as a means to possibly describe observed behaviors.

The frequency source I have used is an online corpus of Spanish compiled by Mark Davies of Brigham Young University (Davies 2002). The corpus consists of over 100,000,000 words from written documents and oral speech from the 1200s-1900s. For the purposes of the study, I found two frequencies to be useful. The first is the corpus limited to the 1800s-1900s, consisting of written and oral words. The second is the corpus limited to the oral section, which happens to be from the 1900s. Both frequencies are listed in Appendices A and B. The frequency serves as a basis to determine a speaker or language learner's input.

Hypothesis

If the results of these past studies hold and the theory of Universal Grammar is true, I predict that L1 Spanish speakers will make very few mistakes, relatively fewer than the child L2 French speakers, in the first two tasks since the native speakers I will be using are adults and thus have had longer exposure to the language than child native speakers. I expect that the L1 Spanish speakers will perform very well on the task of assigning gender to nouns and have a slightly more difficult time with assigning gender to nouns that are less common.

I predict that the frequencies of words established by the corpus will influence how L2 speakers perform on each task. Specifically, the higher the frequency, the better they will perform. When non-native speakers encounter words they have not heard before (or words with low frequencies), they will use default forms like Hawkins' participants. According to both the corpus as a

whole and the corpus' oral section, feminine noun phrases (*la/las N, una/unas N, nuestra/nuestras*) appear more frequently than masculine noun phrases (*el/los N, un/unos N, nuestro/nuestros N*). Therefore, I would expect that if there were speakers who did have a default gender, it would be feminine or [-masc]. Ultimately, I am agreeing with those linguists who propose that L2 speakers are not able to fully acquire, if at all, the gender-marking value, especially when it does not exist in their first language (in this case, English).

With respect to UG, adult L1 speakers should perform near perfectly since they should have their [+gender-marking] parameter value fully acquired at this stage. If L2 speakers, indeed, do not have the [+gender-marking] value of the parameter, they should perform similarly to how Hawkins' (2001) L2 French participants did, namely defaulting one gender over the other. If they do display similar defaulting behaviors, it is possible that they have no access to UG in their L2 and are solely using a cognitive skill, like pattern recognition, to choose gender.

Experimental Design

It is difficult to apply any theory or draw conclusions without knowing the true competence of a speaker. In attempting to measure a speaker's competence while avoiding correlating performance with linguistic competence, I gathered information based on written performance rather than oral performance. I decided to use written performance because of the length and detail of the tasks given.

Three surveys were designed in a manner in accordance with what I had hoped to gather from each of them. The first survey was designed more to eliminate L2 Spanish speakers that were not proficient enough to be helpful to this experiment. The second survey was designed to examine performance of L2 speakers on derived words with a relatively infrequent use when given the derived words' stems, which occur more frequently than their derived counterparts. The third survey was designed primarily with interest in the performance of L1 speakers with nonsense stems and, in turn, nonsense derived nouns.

The first survey (see Appendix D) is comprised of 56 nouns. Nouns that have regular endings (unmarked patterns: '*-a*', '*-ción*', '*-tad*' '*-dad*', '*-o*') were used minimally to establish whether or not speakers in the L2 sample were advanced enough to be considered proficient L2 speakers. Words that are exceptions to the overt markings were also included in this survey, including *drama*[+masc] and *mano*[-masc] 'hand'. The majority of the words have irregular endings, such as '*-ate*', '*-ión*', '*-zón*', and '*-ste*', that can be either [+masc] or [-masc]. Participants were asked to circle the appropriate article (*el*/*la*) of the various nouns. The noun *capital*, included in the original survey, was excluded during analysis for having the property of having one meaning for [+masc] and another meaning for [-masc].

The second survey (see Appendix E) is comprised of 47 stem nouns. The [+masc] and [-masc] derived forms were given as choices beside each stem. For example, *higo* 'fig' was the given stem and participants were asked to choose between *higuero* and *higuera* 'fig tree'. The suffix '*-ero*' ('*-era*' [-masc] form)

was specifically chosen because of its nominalization properties and because of its arbitrariness as far as gender agreement between stem and derived form. An example was given such that the stem was feminine and the correct derived form was masculine, a converse to *higo*[+masc] with its correct derived form *higuera*[-masc]. This suffix is phonologically and orthographically the same as the suffix '*-ero*' with the same [-masc] counterpart '*-era*' which has the meaning of 'seller of *stem*'. The choice between [-masc] and [+masc] with respect to this stem would depend on the gender (sex) of the vendor. For the purposes of my survey, I've used the suffix pair with the alternate meaning of 'holder of *stem*', 'place in which *stem* thrives, grows', and other similar meanings of the suffix that attribute an encompassing meaning to the stem to which it attaches. In reality, nouns with *–ero/-era* endings were used as long as the noun didn't allow for both gendered derivations. (Another suffix in Spanish that acts in a similar way (arbitrary gender agreement), '*-edo*'/'*-eda*', was not used due to its rare appearance in the corpus and therefore assumed rare use in the language.)

The third survey (see Appendix F) contains 25 potential Spanish words. They are nouns that I have created that could potentially exist in Spanish but do not. I created words that had similar properties to those in the first survey, namely regular and irregular endings. Like the second survey, participants were asked to identify which derived word (using the same suffix ending) seemed to be the most correct. This was designed with the intention of tapping into any intuition that native speakers may have even though they had never heard these words prior to the survey. The results from this survey could also serve as a

source from which broad generalizations about L2 speakers' performances can be drawn.

In each survey, participants were asked to indicate on a scale of 1-4 (1=very uncertain, 2=somewhat uncertain, 3=somewhat certain, 4=very certain) how certain they felt about each response they had given. This is most helpful when a correct answer is given since a score of 1 tells me that it may have been a lucky guess, whereas a score of 4 would indicate to me that they know this word and its grammatical gender marking. Grammaticality was judged using the website run by Real Academia Española, an institution that officially regulates all matters pertaining to the Spanish language (like the L'Académie française regulates French).

With the exception of two, all participants were students in advanced (400+ level) Spanish undergraduate classes, in which professors teach in Spanish and reading assignments are written in Spanish. The two exceptions are a graduate student and a Spanish professor. The speakers ranged from age 19-42 with the average age being around 21 years. All L2 Spanish speakers are L1 English speakers, thus eliminating possible variability within the group and possible transfer effects between two [+gender-marking] languages. Aside from the directions given on the survey, all participants were given the same oral directions. There were a total of 33 participants who completed the surveys: 12 L1 Spanish speakers and 21 L2 Spanish speakers. Each survey was completed in no more than 20 minutes, as participants were encouraged not to spend too much time on any one word.

Results

As a group, L1 speakers did not perform as well as predicted on the first survey. Not only did they make more errors than I had thought, but they also seemed to be defaulting to one gender over the other. When L1 speakers did not choose the correct target-like forms for the 17 [-masc] nouns, they defaulted to [+masc] 23.5% of the time. This is especially significant when compared to their performance on the 39 [+masc] nouns, where speakers defaulted to [-masc] only 3% of the time. The most problematic nouns were [-masc] and had low frequencies. For example, none of the 12 L1 speakers properly identified the [-masc] noun *desazón* 'disquietness', which has an overall frequency of 134 and an oral frequency of 3. Furthering the case of overgeneralizing when encountering unknown words, other low-frequency nouns that were [+masc] were identified as such but with relatively lower averages of certainty (~3.7). For example, the [+masc] noun *pullover* 'pullover' (overall frequency of 13 and an oral frequency of 0) was properly identified by all speakers with an average certainty of 3.5. (There were also more low-frequency [+masc] nouns than low-frequency [-masc] nouns in the survey, but more [-masc] nouns caused problems for L1 speakers.

L2 speakers also seemed to favor defaulting to [+masc] over [-masc], but the disparity between the two was not as great as that of the L1 speakers. Almost proportionate numbers of mistakes were made within the L2 group, but there was a higher proportion made when L2 speakers chose [+masc] incorrectly over the target [-masc] form.

Table 1.2 Survey 1 – gendered definite articles

	[+masc]*	[-masc]	[-masc]*	[+masc]

L1	48/204	156/204	14/468	454/468
	(23.5%)	(76.5%)	(3%)	(97%)
L2	101/356	255/356	156/817	661/817
	(28.4%)	(71.6%)	(19.1%)	(80.9%)

(*) – non-target form

Those who did well on this first survey were assumed to be able to properly identify the gender of the stems in the second survey. Therefore, almost all speakers were assumed to know the stems given to them. Those L2 speakers who didn't perform well were assumed to know at least the stems that not only had regular endings, but also followed regular patterns. This will come into play when making generalizations about performance patterns in the next survey.

On the second survey, there were two important aspects of the survey to note. The choice of the derived forms itself and also that choice with respect to the gender of the stem. Looking at Table 1.3 and comparing it to the results in Table 1.2, it seems that both L1 and L2 speakers were guessing, with L1 speakers performing slightly better than L2 speakers. However a closer look at Table 1.3 and Tables 1.4 and 1.5, which break down the performance of speakers by including the possible involvement of the stem, reveals more about both groups. Once again, when L1 speakers made mistakes, a higher percentage of the non-target forms were made in choosing [+masc] rather than [-masc].

L2 speakers also overgeneralized [+masc] again more often than [-masc] in the second survey. Individually, several L2 speakers overgeneralized masculine, while only one L2 speaker overgeneralized feminine. This accounts for some of the results in Tables 1.4 and 1.5.

Table 1.3 Survey 2 – '*-ero*'/'*-era*' suffixation

	[+masc]*	[-masc]	[-masc]*	[+masc]
L1	123/272	149/272	93/288	195/288
	(45.2%)	(54.8%)	(32.3%)	(67.7%)
L2	283/482	199/482	237/499	262/499
	(58.7%)	(41.3%)	(47.5%)	(52.5%)

(*) – non-target form

Although L2 speakers generally performed according to probability (50/50) expected by their low levels of certainty, it doesn't appear to be a case of solely guessing. As shown by the tables below, with special attention to the cases of matching the stem to the derived form, L2 speakers generally matched the gender feature of the derived form to the gender feature of the stem. The percentages of this matching behavior among L2 speakers are very apparent, except for the target cases of [-masc]:[+masc] which can most likely be explained by the fact that the L2 speakers as a group have already been observed in the first survey to default to [+masc] than to [-masc] and can also be explained by those individuals who defaulted masculine and for the individual who did an opposite matching. This relatively better performance by L2 speakers on [-masc]:[+masc] can be further explained by combining the two observed behaviors: speakers may default stems (especially those with irregular endings like *–e*) to [+masc] and then choose the derived form with the same [+masc] feature.

The performance of L1 speakers, however, is less obvious. A case for matching as the L2 speakers had clearly done cannot be made for the L1 speakers as a group. Furthermore, if L1 speakers default to [+masc] as they had for the previous survey, it would be expected that the [+masc] derived forms, target or non-target and regardless of stem, would have higher percentages. L1 speakers

did, however, consistently choose the target forms more often than the non-target forms. Though given the bare majority of target over non-target and the lower averages of certainty (compared to those in the first survey), it is likely that L1 speakers were merely choosing forms that seemed most correct to their native intuition without using patterns as concrete and visible as those used by the L2 group.

Table 1.4 Survey 2 – stem[+masc]:[derived form]

	[+masc]:[+masc]*	[+masc]:[-masc]	[+masc]:[-masc]*	[+masc]:[+masc]
L1	32/84	52/84	81/177	96/177
	(38.1%)	(61.9%)	(45.8%)	(54.2%)
L2	*222/314*	92/314	40/147	*107/147*
	(70.7%)	(29.3%)	(27.2%)	*(72.8%)*

~ gender matching

Table 1.5 Survey 2 – stem[-masc]:[derived form]

	[-masc]:[+masc]*	[-masc]:[-masc]	[-masc]:[-masc]*	[-masc]:[+masc]
L1	62/204	142/204	42/95	53/95
	(30.4%)	(69.6%)	(44.2%)	(55.8%)
L2	61/168	*107/168*	*197/352*	155/352
	(36.3%)	*(63.7%)*	*(56%)*	(44%)

~ gender matching

Since Tables 1.4 and 1.5 clearly illustrate the matching behavior in L2 speakers, the following table (Table 1.6) excludes individuals who showed clear cases of gender matching. This table provides the results for the aforementioned individual speakers who showed strong cases of defaulting [+masc] and a strong pattern of matching opposite genders. These three speakers were part of the majority of L2 speakers who did relatively well on the first survey and were thus assumed to know the gender of the stems. Target forms were dismissed for the table to make the performance patterns of the speakers visibly clearer. For L2

speakers A and B, the highest percentage distribution is among the [+masc] derived forms. L2 speaker D also shows high percentages among the asymmetrical matching forms. It is possible that this asymmetrical matching could have been spurred by the prompt given in the directions of the second survey. The example given was an asymmetrical matching, namely [-masc] stem to a [+masc] derived form.

Table 1.6 Survey 2 – individual L2 cases

	[-masc]:[+masc]	[+masc]:[-masc]	[-masc]:[-masc]	[+masc]:[+masc]
L2-A	*21/47*	8/47	4/47	*14/47*
	(44.7%)	(17%)	(8.5%)	*(29.8%)*
L2-B	*16/47*	3/47	9/47	*19/47*
	(34%)	(6.4%)	(19.1%)	*(40.4%)*
L2-C	*16/47*	0/47	8/47	*23/47*
	(34%)	(0%)	(17%)	*(48.9%)*
L2-D	**19/47**	**15/47**	6/47	7/47
	(40.4%)	**(31.9%)**	(12.8%)	(14.9%)

~ [+masc] defaulting
~ opposite matching

The following table (1.7) shows those individuals in the L1 speaker group who defaulted gender features. L1 speakers A, B, and C overgeneralized the [+masc] feature and L1 speaker D overgeneralized the [-masc] feature. It appears from the first two surveys that defaulting [+masc] is more common than defaulting [-masc]. The individual results of L1-D seem surprising given that L1 and L2 speakers as groups defaulted [+masc] as a group and not one individual L2 speaker defaulted [-masc].

Formatted: Normal, Line spacing: Double, Don't keep with next

Deleted: ¶

Table 1.7 Survey 2 - individual L1 cases

	[-masc]:[+masc]	[+masc]:[-masc]	[-masc]:[-masc]	[+masc]:[+masc]
L1-A	*16/47*	3/47	9/47	*19/47*

	(34%)	(6.4%)	(19.1%)	*(40.4%)*
L1-B	*18/47*	5/47	7/47	*17/47*
	(38.3%)	(10.6%)	(14.9%)	*(36.2%)*
L1-C	*20/47*	6/47	5/47	*16/47*
	(42.6%)	(12.8%)	(10.6%)	*(34%)*
L1-D	10/47	***16/47***	***15/47***	6/47
	(21.3%)	***(34%)***	***(31.9%)***	(12.8%)

~ [+masc] defaulting
~ [-masc] defaulting

The third survey is harder to interpret due to the design of the survey. Since L2 speakers were observed to match the gender of the derived form to the stem from which it derives, we can expect the same behavior here due to the similarity of the tasks of the second and third surveys. If it can be assumed that L2 speakers repeated their behavior in this third task, L2 speakers utilized basic overt pattern endings when identifying nonsense stems with the endings *–o* and *–a* as [+masc] and [-masc], respectively.

Table 1.8 Survey 3 – nonsense derived forms

	[+masc]	[-masc]
L1	*171/298*	127/298
	(57.4%)	(42.6%)
L2	*292/525*	233/525
	(55.6%)	(44.4%)

~ [+masc] defaulting

By analogy to actual words with similar endings, the data in Table 2.3 lists the probable gender of the nonsense stems and Table 1.9 gives the results with respect to those assumed genders. Those nonsense forms denoted with [?masc] are forms that have word endings that exist in both actual [+masc] words and actual [-masc] words and are thus ambiguous. In a predictable manner based on

the second survey, L2 speakers matched genders the majority of the time. Based on the results in Tables 1.4, 1.5, and 1.9 it seems that as a group, the tendency to match genders supercedes the behavior of overgeneralizing the [+masc] feature. L1 speakers defaulted to [+masc] when choosing nonsense derived forms. This result would coincide with their behavior of defaulting [+masc] with forms they were unfamiliar with in the first survey.

Table 1.9 Survey 3 – nonsense stems (with probable gender) with '*-ero*'/'*-era*'

	[+m]:[+m]	[+m]:[-m]	[-m]:[+m]	[-m]:[-m]	[?m]:[+m]	[?m]:[-m]
L1	*81/131*	50/131	*53/95*	42/95	*37/72*	35/72
	(61.8%)	(38.2%)	*(55.8%)*	(44.2%)	*(51.4%)*	(48.6%)
L2	***168/231***	63/231	58/168	**110/168**	*66/126*	60/126
	(72.7%)	(27.3%)	(34.5%)	**(65.5%)**	*(52.4%)*	(47.6%)

~ gender matching
~ [+masc] defaulting

Conclusion

The results of this study seem to both support and disprove the claims behind Universal Grammar. If these L1 Spanish speakers fully acquired an adult grammar, in which the gender-marking parameter is contained, and if UG fills "the gap between the learner's experience and the resulting grammar", it would have to be the case that the 12 adult L1 speakers not only made fewer errors, but that they would not show behaviors of overgeneralizing, especially overgeneralizing different gender features (Table 1.7) like Hawkins' (2001) L2 French speakers Table (1.1).

Deleted:

If, however, defaulting is not assumed to be a behavior by L1 speakers in this study, then the results prove that UG does indeed explain the problem of L1 speakers being able to identify gender features of nouns they most likely have

never received as linguistic input (nouns with exceptionally low frequencies). L1 speakers as a group did consistently outperform the group of L2 speakers. Even if gender defaulting was to be overlooked, the amount of mistakes made in both the first and second survey seems to weaken that claim. It should be noted that L1 speakers, neither as a group nor as individuals, display a behavior of matching. This is strong evidence that there is more of a need to satisfy an actual gender-marking parameter rather than simply choosing a gender feature.

Since L1 speakers did not perform as perfectly as predicted, it is possible for some to exclude Universal Grammar from the discussion and explain their consistent performance over L2 speakers by cognitive and practical means. By my study's results, it is still plausible to believe L1 speakers are utilizing pattern recognition and are more successful by the same reasoning that adult L2 speakers perform better than Anthony. This idea entertains the idea that, over time, L2 speakers will be able to perform as well as L1 speakers who have had the same amount of exposure. It is because of this and the critical period issues that it raises that I do not support this idea and have to fall back on the differences between UG in a language learner's L1 and L2 as a means to analyze the results.

The fact that L2 speakers as a group and as individuals displayed a few different behaviors, namely defaulting [+masc], asymmetrical gender matching from stem to derived form, and symmetrical matching from stem to derived form, shows that they lack the gender-marking value of the parameter that L1 speakers acquire throughout first language acquisition. Hawkins claims that when L2 speakers do perform target-like behavior, it is not because of the gender-marking

Deleted: parameter

value, but instead the learning of exceptions to default forms. In addition, I would say that L2 speakers learn exceptions to overt pattern markings with experience. The results of the L2 speakers clearly provide evidence to Tsimpli and Roussou's claim that L2 speakers cannot acquire parameter values that do not already exist in their L1, true in this case of English (cited in Hawkins 2001). Though L2 speakers do mark gender, they do not do so in a manner efficient and accurate enough to make a case that the parameter is being acquired the way it is acquired by L1 speakers.

It can thus be concluded that once the gender-marking switch is 'turned off' it stays off and is unable to be reset in the L2. If the value of the parameter can only be set in the L1, the inability to acquire the gender-marking value of the parameter in the L2 makes it difficult for one to mark gender on the surface without the underlying gender-marking value. With the results of the study, this may not be so surprising, since it seems that although L1 Spanish speakers exhibit evidence of this value, they, too, have some amount of trouble with the accuracy that should be born from this parameter value.

Deleted: parameter

Deleted: (Hawkins)

Deleted: is thus

Deleted: , too

Deleted: the

Deleted: .

Limitations

In exploring this study more in depth, several aspects can be included or altered. It is possible that sociolinguistic factors can be measured for L1 speakers, including extent of exposure to Spanish, where speakers use Spanish, and with whom they speak Spanish. For L2 speakers what classes they had taken previously (though some classes are assumed by the prerequisites for the course in

Deleted: This experimen

Deleted: t could be enhanced if

Deleted:

Deleted: were

Deleted: It would have been helpful to know the extent of Spanish exposure for each speaker. Along with identifying oneself as an L1 speaker, it should have been asked more about their background, like

Deleted: they speak/

Deleted: also should have been asked about their background, such as

which they were administered the survey), what immersion experiences, if any, do they have, and how they would describe their proficiency as L2 speakers of Spanish, could be factors to be measured. This information could be useful in explaining individual differences in L2 performance, assuming that more exposure over a longer period of time leads to a relatively more complete acquisition of the gender-marking parameter.

If I were to conduct this study again, I may have altered my experimental design. It could have been more concise if I had somewhat combined the three surveys into two surveys. One survey would look similar to the original second survey but include a column to mark the gender of the stem (like the task in the first survey) in addition to the task of choosing between the derived forms. The other survey would have the same format with nonsense stems. I was wary to run the surveys a second time with these alterations, however, thinking that it would force behaviors of matching or asymmetrical matching of stems to derived forms.

Another limitation to this study is the corpus. Linguistic corpora for other languages, like the Corpus of Contemporary American English, include three times as many words in a smaller and more relevant time frame. The corpus that I used did not include sources from the 21st century, a time when many L2 subjects likely learned Spanish and a time that would generally serve as a better basis for the linguistic input all participants encounter.

Deleted: would have been

Deleted: It also would have helped to use this information to eliminate participants who may not have a strong enough background in Spanish to be considered an L2 speaker.

Deleted: do

Deleted: survey

Deleted: would

Deleted: ould

Formatted: None, Line spacing: Double

Deleted: ¶

Citations

Alarcón, I. (2000). The sequential acquisition of Spanish gender marking. Unpublished manuscript, Indiana University, Bloomington.

Bhatia, T. K., & Ritchie, W. C. (Eds.). (1999). Handbook of child language acquisition, (pp. #-##). San Diego: Academic Press.

Davies, Mark. (2002) Corpus del Español (100 million words, 1200s-1900s). Available online at http://www.corpusdelespanol.org.

Hawkins, R. (2001). Second language syntax: A generative introduction, (pp. 253-257). Malden, MA: Blackwell Publishers.

Real Academia Española. (2007). Diccionario de la lengua española (23rd ed.). Madrid: Espasa. Retrieved April 17, 2009, http://buscon.rae.es

Deleted: Display, exhibit¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶
¶

Deleted: -

Deleted: n

Appendix A: L1 and L2 Speaker Performance on Survey 1 (articles '*el*'/'*la*')

Word	L1 [+]	c.a.	L1 [-]	c.a.	L2 [+]	c.a.	L2 [-]	c.a.	oral	freq
lengua	0/12*	--	12/12	4	0/20*	--	20/20	3.9	560	5588
atmósfera	5/12*	3.6	7/12	4	8/21*	3	13/21	3.3	62	1915
emisora	1/12*	3	11/12	3.9	5/21*	2.4	16/21	3.2	29	141
lástima	0/12*	--	12/12	3.5	4/21*	3.8	17/21	3.6	73	1273
mano	0/12*	--	12/12	3.9	3/21*	3.7	18/21	3.8	975	16850
opinión	2/12*	4	10/12	4	4/21*	3.8	17/21	3.8	1090	4868
religión	0/12*	--	12/12	4	1/21*	4	20/21	3.6	241	3752
región	1/12*	4	11/12	4	6/21*	3.3	15/21	3.7	334	3749
canción	0/12*	--	12/12	4	1/21*	3	20/21	4	201	898
razón	0/12*	--	12/12	4	7/21*	3.6	14/21	3.7	1187	10896
sazón	9/12*	3.88	3/12	3.8	13/21*	2.5	8/21	3	3	1194
desazón	9/12*	3.4	3/12	4	13/21*	2.2	8/21	3	3	134
peste	4/12*	3.5	8/12	3.8	10/21*	2.8	11/21	2.5	12	391
hueste	12/12*	3.4	0/12	--	13/21*	2.8	8/21	2.3	3	194
libertad	0/12*	--	12/12	4	0/21*	--	21/21	3.8	625	8580
altivez	5/12*	3	7/12	3.7	11/21*	2.4	10/21	2.8	0	330
ley	0/12*	--	12/12	4	2/21*	4	19/21	3.9	1577	12600
drama	9/12	3.8	3/12*	4	11/21	3.5	10/21*	3.4	64	1083
árbol	12/12	4	0/12*	--	21/21	3.7	0/21*	--	228	1860
papel	12/12	4	0/12*	--	19/21	3.8	2/21*	3.5	693	6455
hospital	12/12	4	0/12*	--	18/21	3.6	3/21*	3.7	700	2445
portal	11/12	3.9	1/12*	4	11/20	3.3	9/20*	2.7	26	725
recital	10/12	3.8	2/12*	2.5	14/21	2.6	7/21*	2.7	36	134
sermón	12/12	3.8	0/12*	--	13/21	3.1	8/21	2.4	13	405
limón	12/12	4	0/12*	--	19/21	3.5	2/21*	3.5	38	335
jamón	12/12	4	0/12*	--	20/21	3.7	1/21*	3	44	209
salmón	12/12	4	0/12*	--	18/21	3.2	3/21*	2.3	22	152
corazón	12/12	4	0/12*	--	14/21	3.6	7/21*	3.7	310	13402
calzón	12/12	4	0/12*	--	14/21	2.6	7/21*	2.7	2	127

buzón	12/12	3.8	0/12*	--	12/21	3.2	9/21*	2.3	6	106
caparazón	7/12	3.7	5/12*	3.2	8/21	2.6	13/21*	2.7	1	99
camión	12/12	4	0/12*	--	16/21	3.7	5/21*	3.6	105	375
golpe	12/12	4	0/12*	--	16/21	3.8	5/21*	2.8	199	3558
viaje	12/12	4	0/12*	--	20/21	3.8	1/21*	3	779	4628
lenguaje	12/12	4	0/12*	--	19/21	3.7	2/21*	3.5	442	2807
personaje	12/12	3.9	0/12*	--	17/21	3.9	4/21*	2.8	493	1933
paisaje	12/12	4	0/12*	--	18/21	3.4	3/21*	2.7	161	1175
debate	12/12	3.9	0/12*	--	20/21	3.6	1/21*	4	561	1393
chocolate	12/12	4	0/12*	--	19/21	3.7	2/21*	3.5	59	512
tomate	12/12	4	0/12*	--	20/21	3.6	1/21*	4	40	269
disparate	12/12	3.9	0/12*	--	19/21	2.6	2/21*	2	49	265
parque	12/12	4	0/12*	--	20/21	3.9	1/21*	4	187	1388
oeste	12/12	3.8	0/12*	--	20/21	3.5	1/21*	3	54	1504
contraste	11/12	4	1/12*	3	18/21	3.4	3/21*	3.3	68	816
chiste	12/12	3.9	0/12*	--	14/21	3.7	7/21*	3.7	120	341
poste	12/12	3.9	0/12*	--	18/20	2.6	2/20*	2.5	14	191
gradiente	11/12	3.4	1/12*	3	19/21	2.8	2/21*	3	23	59
indicio	12/12	3.8	0/12*	--	20/21	3.4	1/21*	3	25	268
maní	12/12	3.7	0/12*	--	12/21	2.9	9/21*	2.1	2	54
poder	12/12	3.9	0/12*	--	21/21	3.9	0/21*	--	1897	15552
cadáver	12/12	4	0/12*	--	17/21	3.5	4/21*	2.3	66	1638
proceder	12/12	3.8	0/12*	--	18/21	2.9	3/21*	2	3	1018
revólver	12/12	4	0/12*	--	19/21	3.2	2/21*	2.5	8	273
pulóver	12/12	3.5	0/12*	--	18/21	2.3	3/21*	2	0	13
kínder	12/12	3.7	0/12*	--	20/21	2.4	1/21*	1	6	11
emisor	11/12	3.8	1/12*	4	12/21	2.5	9/21*	2.3	6	155

c.a. = certainty average
(*) – non-target form
[+] = [+masc]
[-] = [-masc]

Appendix B: L1 and L2 Speaker Performance on Survey 2 (‘*-ero*’/‘*-era*’)

Stem	L1 [+]	c.a.	L1 [-]	c.a.	L2 [+]	c.a.	L2 [-]	c.a.	freq.	oral
canto [+]	8/12*	3.4	4/12	2.8	14/21*	1.9	7/21	1.9	80	18
caldo [+]	8/11*	3.4	3/11	3	12/21*	1.8	9/21	2.3	219	11
prado [+]	3/12*	2.7	9/12	3.2	14/21*	1.9	7/21	1.3	190	10
higo [+]	5/12*	2.6	7/12	3.6	13/21*	1.8	8/21	2	109	7
perro [+]	5/12*	3	7/12	3.6	16/21*	2.25	5/21	2.2	25	0
zapato [+]	9/12*	3.8	3/12	4	16/21*	2.6	5/21	2	33	0
tabaco [+]	5/12*	3.8	7/12	2.9	16/21*	2.1	5/21	2	13	0
tobillo [+]	5/12*	2.8	7/12	3.3	18/21*	1.8	3/21	1.3	0	0
cartel [+]	5/12*	3	7/12	3.6	14/20*	2	6/20	2.3	43	12
papel [+]	6/12*	3.5	6/12	3.3	18/21*	2.1	3/21	2	47	4
coche [+]	5/12*	3.2	7/12	3.9	16/21*	1.9	5/21	1.8	35	3
café [+]	0/12*	--	12/12	3.6	11/21*	2.3	10/21	2.7	96	3
montón [+]	7/10*	2.7	3/10	3	15/21*	1.7	6/21	1.8	36	0
té [+]	7/12*	3	5/12	4	15/21*	2.1	6/21	1.7	21	0
vinagre [+]	3/12*	2	9/12	3.3	14/21*	2.1	7/21	2.6	2	0
libro [+]	10/12	3.7	2/12*	3	14/21	2.4	7/21*	2	93	4
trigo [+]	9/12	2.9	3/12*	4	14/21	1.9	7/21*	1.6	1	0
pecho [+]	9/12	3	3/12*	2.7	18/21	1.8	3/21*	1.3	30	0
helado [+]	5/12	3	7/12*	3.7	13/21	1.8	8/21*	2	4	0
tesoro [+]	10/12	3.5	2/12*	2.5	19/21	2.3	2/21*	1.5	1	0
aceite [+]	6/12	3.7	6/12*	3.3	18/21	1.7	3/21*	1.7	6	0
billete [+]	3/12	3.7	9/12*	3.8	11/21	2	10/21*	2.7	5	0
carreta [-]	2/11*	3.5	9/11	3.8	4/21*	2.3	17/21	2.4	1572	191
carta [-]	6/12*	3.5	6/12	3.7	7/21*	2.6	14/21	2.3	798	94
barra [-]	6/12*	2.8	6/12	3.3	8/21*	2	13/21	1.8	695	80
cabeza [-]	4/12*	3	8/12	3.8	9/21*	1.6	12/21	2	633	36
palma [-]	3/12*	3.7	9/12	3.9	8/21*	1.6	13/21	2.2	413	21

gota [-]	7/12*	3.1	5/12	4	10/21*	1.8	11/21	1.8	2	3
pistola [-]	5/12*	3	7/12	3/6	6/21*	1.8	15/21	2	0	0
leche [-]	9/12*	3.1	3/12	4	9/21*	1.8	12/21	1.9	73	8
letra [-]	12/12	3.8	0/12*	--	10/21	1.7	11/21*	2	273	22
basura [-]	11/12	3.9	1/12*	2	10/21	2.4	11/21*	2.3	83	8
tinta [-]	8/12	3.1	4/12*	3.3	9/21	2.1	12/21*	1.7	192	7
gallina [-]	8/12	3.8	4/12*	3.8	8/21	1.8	13/21*	2	117	5
ropa [-]	10/12	3.7	2/12*	3.5	11/20	1.6	9/20*	2.4	234	4
pluma [-]	8/12	3.5	4/12*	3.3	8/21	2	13/21*	2	71	2
brasa [-]	8/12	3	4/12*	4	7/19	1.7	12/19*	2.2	195	2
hormiga [-]	7/12	3.7	5/12*	3.2	7/21	2.3	14/21*	1.9	139	1
cabra [-]	9/12	3.4	3/12*	3	9/21	1.6	12/21*	2.2	28	1
baba [-]	10/12	3.4	2/12*	4	14/21	2.6	7/21*	2	0	0
semilla [-]	6/12	3.7	6/12*	2.8	8/21	2.4	13/21*	2.1	0	0
bebida [-]	10/12	3.2	2/12*	3.5	7/21	2.1	14/21*	2	0	0
toalla [-]	6/12	3.3	6/12*	3.7	6/21	1.8	15/21*	2.1	0	0
pimienta [-]	4/12	2.3	8/12*	3.8	7/20	2	13/20*	2	0	0
servilleta [-]	3/12	3.7	8/12*	3.6	7/20	2	13/20*	2	0	0
llave [-]	12/12	3.8	0/12*	--	16/21	2.2	5/21*	2	91	5
sal [-]	10/12	3.6	2/12*	2.5	11/21	2.1	10/21*	2	74	1

Appendix C: L1 and L2 Speaker Performance on Survey 3 (nonsense forms)

Stem	L1 (m)	c.a.	L1 (f)	c.a.	L2 (m)	c.a.	L2 (f)	c.a.
mento [+]	7/12	2.3	5/12	3	14/21	2.5	7/21	1.9
piedro [+]	7/12	2.4	5/12	3	14/21	2.3	7/21	2
dando [+]	9/12	2.4	3/12	3	13/21	2.2	8/21	2.4
podra [-]	7/11	2.9	4/11	2.25	8/21	2	13/21	2.4
penta [-]	8/12	3	4/12	2.3	5/21	2	16/21	2.2
pulma [-]	3/12	3	9/12	2.8	6/21	2	15/21	2.4
ameterra [-]	5/12	3.2	7/12	2.3	8/21	2.1	13/21	2.1
supla [-]	7/12	2.6	5/12	3	11/21	1.8	10/21	2.3
ganda [-]	8/12	2.1	4/12	3.3	7/21	2.1	14/21	2.2
lamba [-]	8/12	3	4/12	1.8	6/21	2	15/21	2.1
ranza [-]	7/12	2.6	5/12	2.6	7/21	2	14/21	2.1
droma [?]	7/12	2.6	5/12	2.8	11/21	1.6	10/21	2.6
frama [?]	2/12	1.5	10/12	2.7	8/21	1.9	13/21	2.4
pama [?]	9/12	2.9	3/12	1.3	9/21	1.9	12/21	2.3
briaje [+]	6/12	2.2	6/12	3	17/21	2.2	4/21	2.5
graje [+]	9/12	2.4	3/12	3.3	16/21	2.5	5/21	2.2
date [+]	10/12	2.5	2/12	3	16/21	2.1	5/21	2.6
brate [+]	10/12	2.4	2/12	4	18/21	1.9	3/21	2.7
laste [+]	9/12	2.4	3/12	3	15/21	2.1	6/21	2
flaste [+]	5/12	2.4	7/12	2.6	16/21	1.9	5/21	2.8
falle [?]	7/12	2.1	5/12	3.4	12/21	1.8	9/21	2.2
tostre [?]	6/12	2.3	6/12	3	15/21	2.1	6/21	2.7
mante [+]	2/11	3	9/11	2.4	11/21	1.9	10/21	2.5
ralón [?]	6/12	2.3	6/12	2.7	11/21	2.4	10/21	2
frimón [+]	7/12	2	5/12	3.4	18/21	2.1	3/21	2

Appendix D: Survey 1

The following is a list of Spanish nouns. Please circle the grammatical (correct) article that matches each noun and indicate how certain you are in the correctness of your choice on a scale of 1-4 (1=very uncertain, 2=somewhat uncertain, 3=somewhat certain, 4=extremely certain):

Article	**Word**	**Certainty (1-4)**
el / la	mano	1 2 3 4
el / la	árbol	1 2 3 4
el / la	canción	1 2 3 4
el / la	libertad	1 2 3 4
el / la	camión	1 2 3 4
el / la	lástima	1 2 3 4
el / la	gradiente	1 2 3 4
el / la	cadáver	1 2 3 4
el / la	drama	1 2 3 4
el / la	poder	1 2 3 4
el / la	ley	1 2 3 4
el / la	razón	1 2 3 4
el / la	salmón	1 2 3 4
el / la	hospital	1 2 3 4
el / la	atmósfera	1 2 3 4
el / la	golpe	1 2 3 4
el / la	lenguaje	1 2 3 4
el / la	indicio	1 2 3 4
el / la	lengua	1 2 3 4
el / la	parque	1 2 3 4
el / la	papel	1 2 3 4
el / la	maní	1 2 3 4
el / la	emisora	1 2 3 4
el / la	tomate	1 2 3 4
el / la	sermón	1 2 3 4
el / la	debate	1 2 3 4

el / la	limón	1 2 3 4
el / la	disparate	1 2 3 4
el / la	caparazón	1 2 3 4
el / la	kínder	1 2 3 4
el / la	revólver	1 2 3 4
el / la	proceder	1 2 3 4
el / la	viaje	1 2 3 4
el / la	chiste	1 2 3 4
el / la	sazón	1 2 3 4
el / la	chocolate	1 2 3 4
el / la	portal	1 2 3 4
el / la	personaje	1 2 3 4
el / la	hueste	1 2 3 4
el / la	pulóver	1 2 3 4
el / la	emisor	1 2 3 4
el / la	buzón	1 2 3 4
el / la	jamón	1 2 3 4
el / la	contraste	1 2 3 4
el / la	calzón	1 2 3 4
el / la	poste	1 2 3 4
el / la	paisaje	1 2 3 4
el / la	altivez	1 2 3 4
el / la	recital	1 2 3 4
el / la	peste	1 2 3 4
el / la	corazón	1 2 3 4
el / la	opinión	1 2 3 4
el / la	región	1 2 3 4
el / la	oeste	1 2 3 4
el / la	desazón	1 2 3 4
el / la	religión	1 2 3 4

Appendix E: Survey 2

The following is a list of Spanish nouns. In Spanish, the addition of the suffix –*ero* and –*era* (masculine and feminine forms, respectively) changes the meaning of the noun to which it attaches to something that 'holds, contains, or encompasses' the noun. For example, the word for 'flower', *flor,* with the appropriate gendered suffix, *-ero*, creates *florero* the word for 'flower holder' or 'vase'. And, the word for 'bath' *baño*, paired with the appropriate gendered suffix, *-era*, creates *bañera*, the Spanish word for 'bathtub'. **Please DISREGARD the alternate meaning of the suffix '-ero' that has the meaning of 'seller of', like, in the case of *flor*, a 'florist' or 'flower seller'.**
For each noun, please circle the correct form (masculine or feminine) that follows the 'holds, contains or encompasses' meaning and then indicate, by the same scale as the previous survey, your level of confidence in your choice (1=very uncertain, 2=somewhat uncertain, 3=somewhat certain, 4=extremely certain):

Stem	**Masculine '–ero'**	**Feminine '–era'**	**Certainty (1-4)**
perro	perrero	perrera	1 2 3 4
baba	babero	babera	1 2 3 4
vinagre	vinagrero	vinagrera	1 2 3 4
café	cafetero	cafetera	1 2 3 4
semilla	semillero	semillera	1 2 3 4
bebida	bebedero	bebedera	1 2 3 4
sal	salero	salera	1 2 3 4
basura	basurero	basurera	1 2 3 4
tinta	tintero	tintera	1 2 3 4
gota	gotero	gotera	1 2 3 4
aceite	aceitero	aceitera	1 2 3 4
toalla	toallero	toallera	1 2 3 4
té	tetero	tetera	1 2 3 4
tabaco	tabaquero	tabaquera	1 2 3 4
pluma	plumero	plumera	1 2 3 4
trigo	triguero	triguera	1 2 3 4
tobillo	tobillero	tobillera	1 2 3 4
pistola	pistolero	pistolera	1 2 3 4
pimienta	pimentero	pimentera	1 2 3 4
ropa	ropero	ropera	1 2 3 4

servilleta	servilletero	servilletera	1	2	3	4
llave	llavero	llavera	1	2	3	4
libro	librero	librera	1	2	3	4
papel	papelero	papelera	1	2	3	4
montón	montonero	montonera	1	2	3	4
coche	cochero	cochera	1	2	3	4
leche	lechero	lechera	1	2	3	4
letra	letrero	letrera	1	2	3	4
cartel	cartelero	cartelera	1	2	3	4
billete	billetero	billetera	1	2	3	4
caldo	caldero	caldera	1	2	3	4
brasa	brasero	brasera	1	2	3	4
higo	higuero	higuera	1	2	3	4
canto	cantero	cantera	1	2	3	4
cabeza	cabecero	cabecera	1	2	3	4
hormiga	hormiguero	hormiguera	1	2	3	4
palma	palmero	palmera	1	2	3	4
pecho	pechero	pechera	1	2	3	4
prado	pradero	pradera	1	2	3	4
cabra	cabrero	cabrera	1	2	3	4
helado	heladero	heladera	1	2	3	4
gallina	gallinero	gallinera	1	2	3	4
zapato	zapatero	zapatera	1	2	3	4
tesoro	tesorero	tesorera	1	2	3	4
barra	barrero	barrera	1	2	3	4
carta	cartero	cartera	1	2	3	4
carreta	carretero	carretera	1	2	3	4

Appendix F: Survey 3

The masculine and feminine columns list potential derived words in Spanish (words that could potentially exist in Spanish, but do not). Following the same procedure as the previous survey with words ending in *–ero* and *–era*, please circle the form that you feel would be most correct or most grammatical if these were actually real words and indicate your confidence in your choice (even though there is obviously no real correct answer) on a scale of 1-4 (1=very uncertain, 2=somewhat uncertain, 3=somewhat certain, 4=extremely certain):

Stem	**Masculine –ero**	**Feminine –era**	**Certainty (1-4)**
podra	podrero	podrera	1 2 3 4
graje	grajero	grajera	1 2 3 4
frama	framero	framera	1 2 3 4
mento	mentero	mentera	1 2 3 4
pulma	pulmero	pulmera	1 2 3 4
penta	pentero	pentera	1 2 3 4
brate	bratero	bratera	1 2 3 4
ameterra	ameterrero	ameterrera	1 2 3 4
laste	lastero	lastera	1 2 3 4
ralón	ralonero	ralonera	1 2 3 4
falle	fallero	fallera	1 2 3 4
supla	suplero	suplera	1 2 3 4
piedro	pedrero	pedrera	1 2 3 4
tostre	tostrero	tostrera	1 2 3 4
mante	mantero	mantera	1 2 3 4
ganda	gandero	gandera	1 2 3 4
droma	dromero	dromera	1 2 3 4
flaste	flastero	flastera	1 2 3 4
dando	dandero	dandera	1 2 3 4
pama	pamero	pamera	1 2 3 4
frimón	frimonero	frimonera	1 2 3 4
lamba	lambero	lambera	1 2 3 4
ranza	rancero	rancera	1 2 3 4
date	datero	datera	1 2 3 4
briaje	briajero	briajera	1 2 3 4