The relationship between language proficiency and language attitudes
Evidence from young Spanish-English bilinguals

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To determine how attitudes toward the minority language change with age, sixty-five Spanish/English bilingual children completed an attitude questionnaire. Results show that first graders have roughly equal attitudes to Spanish and English, while second, third, and fourth graders increasingly state a preference for English. However, among fifth graders, a decrease in this preference for English is found. Results from a matched guise task show that the Spanish and English versions are not rated significantly differently, suggesting that, while children prefer speaking English, they may not project negative attitudes onto Spanish-speakers themselves. Finally, a shift in language preference is found before a shift in language dominance, which may suggest that negative attitudes toward the heritage language lead to a dominance shift.

Keywords: Heritage Spanish, language attitudes, language maintenance

1. Introduction

More and more, children in the United States are speaking a language other than English at home prior to exposure to English-language schooling. Among these, Spanish is, by far, the most prevalent non-English language spoken at home (United States Census Bureau 2011). Children who grow up in this type of environment often develop different minority language grammars than those of their monolingual peers due to lack of input and output in the minority language and transfer from English (Bylund 2009; Otheguy and Zentella 2012; Polinsky 2011; Silva-Corvalán 2003). While there is copious research on the effect of attitudes and motivation on second language acquisition (see for example Dörnyei 2009; Kormos, Kiddle and Czisér 2011; Masgoret and Gardner 2003), much of this knowledge has yet to be applied to heritage language or minority language acquisition. A heritage
language in the broad sense is a language with which individuals have a personal connection, regardless of proficiency in said language (Fishman 2001). However, for linguists and educators the terms *heritage language learner* or *heritage speaker* usually refer to a student who was raised in a home where a non-English language was spoken and is to some degree bilingual in that language and English (Valdés 2000). Heritage languages are often minority languages, that is, they are spoken by a minority of the population in a given area and/or are not recognized officially by formal education and government (Matras 2009).

This study examines the attitudes that children have toward each of their languages upon entering English-language schooling, how they differ based on age, and their relationship to minority language proficiency. In order to do so, a cross-sectional study including children from Kindergarten to 5th grade has been conducted with the hope that the results may assist educators in understanding the role that psychosocial and affective factors can play in the acquisition of a minority language.

2. Previous research

2.1 Effects of learner attitudes on second-language (L2) acquisition

Motivation is defined by Dörnyei and Otto (1998, 65) as the “dynamically changing cumulative arousal in a person that initiates, directs, coordinates, amplifies, terminates, and evaluates the cognitive and motor processes whereby initial wishes and desires are selected, prioritized, operationalised, and (successfully or unsuccessfully) acted out”. Linguistic attitudes, on the other hand, can be understood as “the attitudes which speakers of different languages or language varieties have towards each other’s languages or to their own language. Expressions of positive or negative feelings towards a language may reflect impressions of linguistic difficulty or simplicity, ease or difficulty of learning, degree of importance, elegance, social status, etc. Attitudes toward a language may also show what people feel about speakers of that language” (Richards, Platt and Platt 1992, 199).

In a meta-analysis of their previous research, Masgoret and Gardner (2003) argue that five affective variables influence the acquisition of an L2. These are integrativeness, or the desire to be connected to the minority-language community, attitudes toward the learning situation, motivation, integrative orientation and instrumental orientation. The authors conclude that attitudes toward the L2 have an indirect effect on acquisition by influencing motivation. This means that attitudes affect motivation to learn the L2, which, in turn, affects the outcome of acquisition. Importantly, the authors found that this effect was not mitigated by either
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age or availability of the L2 in the community. These findings suggest that, even in immersion contexts, motivation still affects the outcomes of language acquisition. These environments would be more similar to those that young bilingual children experience in that they are exposed to input in the home and in day-to-day as opposed to academic contexts (Beaudrie and Ducar 2005; Carreira and Kagan 2011).

A more recent study examined the attitudes that 201 high school students, 174 university students and 143 adult language learners from Santiago, Chile have toward English as an L2 and how these can change with age (Kormos et al. 2011). Results from a fifty-item questionnaire show that, regardless of age, attitudes had a significant effect on persistence and effort exerted in the L2. However, the authors did find that high school students’ motivation is based primarily on the “ought-to ideal self”, or what the students believe they are supposed to be, based on parental, peer and societal expectations. The university students and adults, on the other hand, seem to have internalized these external expectations which have now become their own ideal L2 self, leading to more internal rather than external motivation (see Dörnyei 2009 for discussion of these terms).

These studies and the line of research they belong to have shown that attitudes toward an L2 affect motivation to learn across all age groups and in both foreign language and immersion contexts. Kormos et al. (2011) began to address the changes that attitudes may undergo over time, but they did not extend this analysis to very young children, a particularly relevant group for research in heritage language maintenance. Also important to keep in mind is that this line of research focuses on the acquisition of an L2, (i.e. additive bilingualism) and it is not clear whether the same results will hold in situations of first language (L1) maintenance.

2.2 Effects of attitudes on family language transmission

In order to determine the effect of attitudes on heritage language or family language transmission, a recent line of research has focused on language planning and parental decisions about which languages to transmit. Parental attitudes have received special consideration in these situations given that parents decide, to a certain extent, which languages will be permitted in the home.

One study with fifty-four Jewish emigrants from Germany revealed that the attitude or identity factor correlated significantly with the maintenance of German (Schmid 2002). Specifically, in this case, those parents with more negative attitudes toward German, due to greater persecution from the Nazi regime, showed less successful maintenance and transmission of the heritage language. These results suggest that negative parental attitudes toward the minority language may lead to a subtractive bilingual situation. While language prestige, or the relative respect given to a language or dialect within a community, can influence the rate of
minority language transmission (see Baker and Jones 1998 for an overview), this extremely traumatic experience associated with German is not exactly comparable to simple questions of language prestige.

A study that more closely resembles the current study’s context of interest was conducted by Lambert and Taylor (1996) with Cuban-American mothers in Miami. One hundred and eight mothers of junior-high-school-aged children were interviewed about their attitudes toward Spanish. The mothers were divided into two groups based on socioeconomic status (SES), which was determined by their child’s eligibility for free and reduced lunches through the public school system. On direct questions about the importance of bilingualism and maintaining their Hispanic culture in the home, all parents said they were in favor of their children maintaining Spanish. This was also the case in a study by García, Evangelista, Martínez, Disla and Paulino (1988). However, more indirect measures showed that mothers from lower SES encouraged subtractive bilingualism (shifting from L1 to L2) while mothers with higher SES promoted additive bilingualism (acquiring an L2 while maintaining the L1) (Lambert 1975). This may be related to the lower SES mothers’ desire for their children to progress and their association of English with economic and academic success.

In fact, these results are confirmed by a recent study exploring Mexican profesionista mothers’ attitudes toward Spanish and English use in their homes (MacGregor-Mendoza 2015). These women raise children in homes where both parents are highly educated, come to the United States to work legally in skilled positions through employer or university sponsorship, and often travel between Mexico and the United States. The findings of this study revealed that these women of stable economic backgrounds and prestigious careers held both English and Spanish in high esteem and valued the maintenance of Spanish in the home. However, what remains to be seen from these studies is whether or not this increased appreciation for language maintenance and bilingualism actually results in greater levels of minority language proficiency among their children.

One study that intended to analyze the effect of parental attitudes and behaviors on minority language transmission in Australia discovered that child attitudes may also be playing an important role in their acquisition of the minority language (Lambert 2008). The author interviewed thirty-one German immigrants who were potential transmitters of the language to determine which factors correlated most highly with successful transmission of German. The affective factors most likely to encourage transmission were related to an appreciation of the symbolic, communicative and cognitive benefits of bilingualism rather than the prestige of German itself. The transmission process found to be most successful was a child-centered approach, focusing on child motivation to learn the minority language.
Jia and Aaronson (2003) conducted a longitudinal study in order to explore the changes in Chinese immigrants’ language preferences, exposure to input and proficiency in both the L1 and the L2. The children’s ages of arrival to the U.S. varied from age five to sixteen. Results showed that younger children (age eight or younger) switched dominance to the L2 very quickly, leading them to use the L2 more as a result (especially in contexts where they have some agency such as with siblings, friends, etc.), creating a cycle of greater L2 dominance. Dominance, here, is understood as relative proficiency in a bilingual’s two languages, with the dominant language being the more proficient language of the bilingual. Similarly, younger children made more friends who speak the L2 and read almost exclusively in the L2, again exposing them to more input. The younger children also showed declines in L1 proficiency, while the older children’s remained stable. The authors argue that, rather than correlating with chronological age, child attitudes, peer networks and resulting input exposure lead to these differences in L1 maintenance.

Clearly, attitudes toward the minority language play a significant role in successful minority language transmission and maintenance. Specifically, parents seem to support bilingualism generally, but more indirect measures of their behavior may not match these positive attitudes. Most previous research on minority language transmission has focused on parental attitudes or parental reports of child attitudes, and motivation has been treated as a fixed construct that does not change throughout the lifespan. Therefore, research on child attitudes and how they change with age is needed.

2.3 The importance of child attitudes in minority language transmission

It is imperative that the field consider the importance of studying child attitudes toward minority languages due to the fact that their attitudes do not necessarily correlate with parental attitudes. If they do not, child attitudes may be a variable affecting minority language transmission, which is not yet fully understood. Also, child attitudes have been assumed to be positive in the past due to direct questioning methods and children’s unwillingness to explicitly express negative feelings towards either of their languages when they know they are supposed to be proud of their heritage.

In Toronto, Pérez-Leroux, Cuza and Thomas (2011) interviewed the parents of twenty-three bilingual children who completed proficiency tasks in Spanish in order to determine whether language attitudes correlated with family language practices or with the child’s proficiency in the home language. The results showed that all parents had very positive attitudes toward bilingualism and toward Spanish. However, these attitudes did not correlate highly with family language practices or child proficiency in the L1. Similarly, child preferences did not necessarily
correlate with adult attitudes. Clearly, a disconnect between parental attitudes as expressed in direct measures and family language practices exists. For this reason, this study aims to study child attitudes and their potential relationship to minority language proficiency.

Similarly, it has been found that parental behavior in terms of family language practices is influenced by their perceptions of their child’s proficiency in each of his or her languages. Schwartz and Moin (2012) compared the parental ratings for 27 Russian-Hebrew bilingual children in Kindergarten to their children’s performance several measures of language proficiency including receptive vocabulary, productive vocabulary, depth of vocabulary knowledge, and mean length of utterance (MLU). They found that parents tend to overestimate their child’s general language ability in the L2 (Hebrew) especially among those who had chosen to immerse their children in Hebrew-only kindergartens. This suggests that family language practices are more complicated than studies addressing only parental attitudes would suggest and that parents may make decisions regarding language use that do not correspond directly to their language preferences or the importance they associate with each language.

Other studies have shown similar results, finding that attitudes stated directly may not correlate with more indirect measures of attitudes or with actual behavior. For example, in a study by Eilers, Pearson and Cobo-Lewis (2006), 110 junior high students from Miami completed linguistic background questionnaires regarding their patterns of language use and their attitudes toward Spanish, their home language. Ninety percent of these students stated that they planned on teaching their children Spanish one day, even if their current level of Spanish use was very low. That is, these students state that Spanish is very important to them on direct measures, but, since their behavior does not reflect this (they rarely use Spanish), it may be an artifact of the task.

In another study on the attitudes of adolescents in Palma de Mallorca, Spain toward their minority language, Catalan, the students expressed positive attitudes on direct measures, but results from a matched guise task showed that these children do not associate Catalan with success (Pieras-Guasp 2002). It may be the case that children and adolescents, even more than adults, are unwilling to express overtly negative attitudes toward their L1 for fear of angering the researcher or being seen as unappreciative of their heritage.

A landmark study addressing these questions was conducted by Hakuta and D’Andrea (1992) with 308 Mexican-American high school students in California. The results showed that these students’ attitudes did not correlate with language proficiency, but did correlate with language choice, that is, how often an individual chose to speak Spanish and in which contexts. A more recent study conducted by Yanguas (2010) also found no correlation between integrativeness and proficiency.
However, they did find a correlation between integrativeness and motivation, suggesting that those who value the Hispanic community are more motivated to improve their Spanish. These findings are very important for the current study in that they suggest that attitudes at a younger age, while acquisition is still in process, may affect language choice (as was shown with these high school students) and, as a result, language proficiency. Since these students are already adolescents, their current attitudes would not affect the acquisition process. However, their attitudes at a younger age, during acquisition, may correlate with proficiency levels. We have seen in other studies (Jia and Aaronson 2003) that language preference for the L2 at a young age can lead to subtractive bilingualism. This may be even truer in the American Midwest, where Spanish is not as widely spoken in public as in California.

Research into the complex attitudes children have toward their languages has become a popular area of study for ethnographic researchers (Fuller 2007; Potowski 2004; Shenk 2008) and for other qualitative researchers (Kondo 2002). These studies can shed light on how children understand language choice and identity and how this changes with age. Results suggest that children often feel obligated to speak the minority language by parents, teachers and authority figures, but do not see it as a socially prestigious language in most contexts (Kondo 2002; Potowski 2004). Adult heritage speakers also explain that, for a period during their childhood, they were not interested in learning or practicing the minority language, but, as adults, they wished that they had placed more importance on developing their heritage language. These results suggest that children have very complex ideas about what the use of each of their languages entails (Fuller 2007; Potowski 2004; Shenk 2008), and that attitudes may not be as uniformly positive as research with adolescents or adults, or even research with direct measures of child attitudes, may suggest.

2.4 Objectives and research questions

If it is the case that children pass through a period of increased conformity, as research has shown occurs in younger children upon entrance into majority-language schooling, the main setting for socialization (Walker 1996), this may affect the acquisition process by influencing the amount of minority-language input to which children expose themselves. For example, children who immigrate to the United States at different ages socialize in different ways, with younger children making more friends who speak the majority language, watching more television in the majority language and reading in the majority language more (Jia and Aaronson 2003; Jia, Aaronson and Wu 2002). Hakuta and D’Andrea (1992) similarly found that language attitudes could affect language choice in adolescents.
Therefore, attitudes in younger children affecting language choice and input exposure may be more critical due to the fact that these children are still in the process of acquiring both languages.\(^1\) It may be that all children pass through a certain age at which attitudes toward the minority language are very negative. If research can discover the age(s) of most resistance to the minority language, language planning programs and bilingual educators can target children at these ages. Specifically, they could provide extra input in the minority language or place an increased focus on social benefits of the language through playgroups, exposure to minority language pop culture, or the study of prestigious minority-language-speaking professionals.

In order to determine at which age heritage language learners develop more negative attitudes toward the minority language, a quantitative study of Spanish-English bilinguals during the first years of elementary school must be performed since, at this age, conformity is highest (Walker 1996) and acquisition of both languages is still in process. Such a study should explore how attitudes change throughout elementary school using a longitudinal or cross-sectional design that compares attitudes across young children of different ages. Finally, research that compares child attitudes and proficiency in the minority language is needed since it has been shown that parental attitudes are not always a reliable predictor of family language practice or child proficiency levels. The current study will contribute to this line of research by addressing the following research questions:

RQ1. Do children’s attitudes toward the minority language differ based on age? If so, how?
H1: Upon entrance into English-language schooling, attitudes toward Spanish will be more positive, but will become less so as children get older and develop more English-language friendships and competence.

RQ2. Do attitudes toward the minority language correlate with language dominance? If so, in what ways?
H2: Language preference will shift toward English before language dominance, because the preference for English will lead to increasing dominance in English

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1. Clearly, this relationship could go the other way, with the dominance shift leading to the shift in attitudes. At this point, the relationship is unclear, and this study hopes to tease this apart in what follows.
3. The study

3.1 Participants

The participants in this study were sixty-five simultaneous (exposed to both languages before age 3;0 (Meisel 1990)) Spanish-English bilingual children from the American Midwest. These children came from two different English-only public elementary schools in the same state and were divided into six groups based on their current grade in elementary school, as shown below in Table 1.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>N</th>
<th>Mean Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kindergarten</td>
<td>6</td>
<td>5;8</td>
</tr>
<tr>
<td>1st Grade</td>
<td>8</td>
<td>6;5</td>
</tr>
<tr>
<td>2nd Grade</td>
<td>16</td>
<td>7;8</td>
</tr>
<tr>
<td>3rd Grade</td>
<td>12</td>
<td>8;11</td>
</tr>
<tr>
<td>4th Grade</td>
<td>17</td>
<td>9;8</td>
</tr>
<tr>
<td>5th Grade</td>
<td>7</td>
<td>11;1</td>
</tr>
</tbody>
</table>

Some of these children (N = 26) received eighteen hours of Spanish literacy classes in an after school program as part of a larger study (Cuza, Miller, Pasquarella & Chen ongoing), which may have influenced their attitudes. However, since these children are spread equally across age groups, they are not expected to skew the data, affecting one age group more than another. In this way, the main research question of how attitudes change across age groups may still be addressed. All children share similar linguistic and socioeconomic profiles (45.2% at one school and 49.1% at the other receive free or reduced price lunches in 2012-2013 school year compared to 51% national average (Southern Education Foundation 2015), coming from homes in which Spanish is the primary spoken language, and all students had completed all of their schooling in the United States. This information is based on questionnaires that every parent completed regarding their own linguistic background and that of their child (Pérez-Leroux et al. 2011).

3.2 Tasks

In the first task, the children were interviewed about their attitudes toward the minority language using a questionnaire adapted from Oliver and Purdie (1998). This questionnaire asks participants to attribute attitudes to their peers, their parents, their teachers and themselves as to the use of the minority language in various
contexts. Responses are given on a three-point Likert scale accompanied with images of faces expressing various levels of approval or disapproval (see Appendix A). Specifically, a smiling face was intended to express positive attitudes, a face with a flat mouth to express ambivalence and a frowning face to express negative attitudes. Although these symbols were explained, it is possible, as pointed out by an anonymous reviewer, that some, specifically the neutral symbol, were not interpreted in the intended ways by the children. Questionnaires were completed independently in writing by those children who were old enough to read (over age seven), and orally in the preferred language of the participant for those under the age of seven. The author, an American English/Spanish bilingual, conducted the interviews. These attitudes were then compared across the different age groups in order to determine how attitudes differ among children of different ages.

A matched guise task was also conducted in order to measure attitudes of the same group of children through ratings of four speakers, based on speech samples in Spanish and English, in terms of status, solidarity and dynamism (Díaz-Campos and Killam 2012; Pieras-Guasp 2002; Zahn and Hopper 1985). Following previous research, the differences in ratings for Spanish and English can be attributed to the participants’ attitudes toward each language since speakers will be the same in both languages, and all other variables were held constant such as formality of text, content of text, length of text, tone of voice, etc. Again, these ratings were compared across age groups to determine how attitudes toward the minority language differ across age groups.

The adjective scales used for the matched guise task were adapted from Zahn and Hopper’s (1985) speech evaluation instrument, which identified three main variables as predicting the variance in the ratings: status, solidarity and dynamism. Specifically, the authors present adjective pairs and group them into the three categories. For this task, five adjective pairs from each category, which predicted the highest amount of variance in the data, were chosen, in order to keep the task as short as possible for the young children (see Appendix B). It is important to note that for this task, data from participants in both Kindergarten and first grade had to be discarded due to the fact that they could not focus for the entirety of the task, did not understand the adjectives and clearly rated speakers randomly. Overall, a total of thirty-nine of the original sixty-five participants completed this task. Despite the fact that the older children claimed to understand the tasks and seemed

2. The neutral faces were chosen with the following frequencies for each age group: K: 8%, 1st: 18%, 2nd: 23%, 3rd: 19%, 4th: 31%, 5th: 19%

3. Seven was used as a cutoff age for reading ability, because, at this age, participants are deemed eligible to provide written rather than oral consent.
to rate speakers in a logical and thoughtful manner, it is always possible that some adjectives were misunderstood by the children, even at the higher grade levels.

Four Mexican Spanish/American English bilingual speakers, two men and two women, were recorded reading the story *The Very Hungry Caterpillar* once in Spanish and once in English. This story was chosen because it is familiar to the children, would hold their attention, had both Mexican Spanish and American English versions available, and had the similar word counts in both English and Spanish (English: 224; Spanish: 212). The bilingual speakers were instructed to read the story in whichever way felt most natural to them, but to read both versions in a similar manner. The recordings were presented in two sittings due to the short attention spans of the children and to ensure that the children did not realize they were hearing the same speakers twice. No participant expressed that he or she was aware that participants were recorded twice. Four speakers were used instead of eight as in Pieras-Guasp (2002), again to simplify the task for the children, and, as mentioned above, the children did not recognize the speakers as being the same despite the lower numbers.

Testing took place on two days, one week apart, in the library for one hour after school. On the day of testing, each child was placed in a group with no more than five participants of the same age and an undergraduate student who helped guide the task with their group. The meaning of all adjective pairs was reviewed at the beginning of the task, and throughout, as needed. Each recording was played twice. The children were instructed to listen quietly during the first listen, to ensure that all children could hear clearly, and, during the second listen, the children were instructed to circle their answers while they listened. The children were informed that they had to try to guess what each person was like just by listening to how they talked. No specific mention of language was made. In order to avoid peer influence, children did not discuss their answers.

Measuring linguistic attitudes is known to be difficult, with direct measures being especially criticized (Fasold 1984; Ferrer and Sankoff 2003). For this reason, matched guise techniques, developed in the 1960s have become the most common method of assessing linguistic attitudes, preferably in addition to a direct measure (Agheyisi and Fishman 1970; Lambert, Hodgson, Gardner and Fillenbaum 1960). Although, measuring language attitudes with children poses an especial difficulty for the researcher (Mackey and Gass 2005), both methodologies described above have previously been used with school-age children in minority-language contexts (Day 1982; Hoare 2001; Jean and Geva 2012; Kerkhoff, van Hout and Vallen 1988; Oliver and Purdie 1998; Schwartz 2008), and Rosenthal (1974) found that social attitudes toward language are evident as early as 5 years of age.

Proficiency for the participants was measured in two ways. First, by language proficiency scores as reported by the parents, and, additionally, with the *Test de*
Vocabulario en Imágenes Peabody (TVIP) (Dunn, Padilla, Lugo and Dunn 1986), which is a standardized measure of children’s receptive vocabulary used in previous research (e.g. Montrul and Sánchez-Walker 2013). The children are required to identify the correct picture out of four choices for each vocabulary item they hear. As the test progresses the frequency of the words declines based on word frequency lists in Spanish (see Appendix C for example). The parental ratings were given on a questionnaire and were the average of parental ratings of the children’s ability from 1 (basic ability) to 4 (completely fluent) in each of the four skills (reading, writing, speaking and listening). These ratings were given on the questionnaire filled out by parents, providing information about the children and their linguistic experience.

3.3 Results

3.3.1 Attitude attribution measure

In order to analyze the data from the attitudes questionnaire, responses for each group were initially collapsed into the binary categories Spanish and English in order to get a global idea of which language children prefer at which age. Responses were marked either as 1, 0 or −1, with 1 being positive, 0 being neutral and −1 being negative. The difference between the two attitudes scores will be referred to as a language preference score. English scores were subtracted from Spanish so that a negative number represents a preference for English, 0 represents no preference, and a positive number represents a preference for Spanish. Although, no main effect for group was found after performing a one-way ANOVA ($F = 1.171$, $p = .334$), as can be seen in Figure 1, a pattern seems to emerge with participants from grade four (mean age: 9;8) having the strongest preference for English compared to Spanish. As expected, we see that the youngest children, in first grade, do not show any preference between the two languages ($t = .000$, $p = 1.00$). As exposure to majority-language schooling increases, preference for English steadily grows until fifth grade, when we no longer see this pattern. According to paired-samples t-tests, the differences between attitude scores for Spanish and English are significant for third ($t = 3.184$, $p = .009$) and fourth graders ($t = 4.219$, $p = .001$), but not for fifth graders ($t = 1.586$, $p = .164$). The oldest children show less of a preference for English than do their younger counterparts.

4. Data from participants in Kindergarten was not included in the group comparison, due to the small number of participants in this group.
In order to determine the contexts in which each language is more strongly preferred, all participants’ responses were compared for each item. In Figure 2, we see that the most negative numbers are attributed to the teacher’s attitude toward the use of Spanish in the classroom followed closely by both classmates’ and parents’ attitudes toward Spanish use in the classroom. Interestingly, the context which asks how the child feels about using both languages shows that, overall, they prefer Spanish at home, but English on the playground. Bilingual children consider their parents to prefer Spanish at home, English in the classroom, and to be slightly more ambivalent about language use on the playground. Classmates, the age-level peers of the participants, are assumed to dramatically prefer English in the classroom and on the playground, but have slightly less preference about the use of English by our participants at home.

See Figure 2 for a summary of these results. In all following figures, contexts are described with a three-letter code with the first letter representing the person/group, the second representing language and the third, setting. The letters can be understood in the following way:

- PERSON/GROUP: Y=you (referring to the child), C=classmates, T=teacher, P=parents
- LANGUAGE: S=Spanish, E=English.
- SETTING: H=home C=classroom, P=playground

Therefore, CEC, can be read as “classmates attitude toward English in the classroom”.

Significant differences were found between English and Spanish attitude attributions for the YP ($t = −4.871, p < .001$), CH ($t = −2.097, p = .038$), CC ($t = −6.952, p < .001$), CP ($t = −5.508, p < .001$), TC ($t = −6.312, p < .001$), TP ($t = −3.885, p < .001$), PH ($t = 5.403, p < .001$) and PC ($t = −4.192, p < .001$) contexts.
Figure 2. Comparison of Attitude Attribution Measure Across Context

These data can also be analyzed in order from most negative attitudes to most positive attitudes as seen in Figure 3 below, which shows parents’ attitudes toward the use of Spanish at home as being the most positive along with classmates’ attitudes toward the use of English in the classroom, while the most negative attitudes are toward the use of Spanish in the classroom across all groups. These data are meant to provide a more nuanced description of child attitudes, and, as found in previous research, children report a preference for English in settings where they interact with peers, such as the playground and the classroom (Jean and Geva 2012; Potowski 2004). We also see that children clearly feel that different people in their lives prefer them to speak different languages, meaning that children are aware of language preferences and their need to cater to these.

Figure 3. Analysis of Contexts by Level of Positive Attitudes Reported

In order to determine the relationship between language dominance and language attitudes, the average scores for these two variables were placed in the same figure. Language dominance was calculated by subtracting parental reports of Spanish
proficiency from parental reports of English proficiency (Montrul and Sánchez-Walker 2013; Pérez-Leroux et al. 2011; Restrepo 1998). Therefore, a positive number represents an English dominant child, 0 represents a balanced bilingual and a negative number represents a Spanish dominant child. Although no main effect of grade on language dominance was found by a one-way ANOVA test ($F = .882$, $p = .483$), possibly due to high levels of variation, Figure 4 shows that language preference seems to switch to English in second grade, as represented by the negative numbers, before dominance switches to English in third grade. Therefore, these results suggest that the language dominance shift does not cause the shift in language preference since it occurs later in elementary school. In fact, it may be that the shift in language preference causes the shift in language dominance. A Pearson correlation test revealed no significant correlation between language preference and language dominance as reported by the parents ($R = −.118$, $p = .429$) or between TVIP scores and language preference ($R = .047$, $p = .792$). However, more data are needed to confirm this trend as other studies have found an earlier dominance shift, specifically in second grade (Miller and Cuza 2013).

![Figure 4. The relationship between language dominance and language preference](image_url)

### 3.3.2 Matched guise task

The results for each speaker were coded from one to five, with one being one extreme on the adjective scale, five being the other, and the numbers in between, corresponding to areas in between. Attitudes for all participants were compared for each speaker’s Spanish and English version. The children did not seem to be rating the speakers differently based on language choice, evidenced by the fact that ratings were not significantly different for the Spanish and English versions. The ratings of the four speakers were collapsed in order to demonstrate this pattern.
As can be seen in Figure 5, these children do not rate Spanish and English-speakers differently on any of the adjective scales.

4. Discussion and conclusion

Based on the results from the Attitude Attribution Measure, a pattern of attitude shift toward young bilingual children’s two languages during elementary school can clearly be seen. Although a longitudinal study is needed to confirm attitude change trends among individual children, some trends can be observed by comparing the different age groups in a cross-sectional fashion. As expected, among the youngest children, attitudes toward Spanish are positive, but, with greater exposure to English-language schooling and English peer networks, slightly older children show a preference for English. This preference for English is greater for each of the following grade levels until fifth grade, at which age students show a less drastic preference for the majority language, although they still prefer it to the minority language. This may be a point at which students start to understand the importance of their home language and become less embarrassed about speaking it. This change could be due to the creation of stable peer groups who children feel will support them despite their differences. It may also be due to psychological changes in children with older children wanting to express their individuality more than younger children (Walker 1996). This age of strongest preference toward English is slightly older than what was expected based on previous research (Jia and Aaronson 2003; Miller and Cuza 2013), which documented a dominance shift toward the majority language around age eight. However, it was also found in the current study that the shift in attitudes precedes the dominance shift, suggesting a possible causal relationship. No significant correlation was found between minority language proficiency and language preference, but this would be expected if one shift occurs before the other. This suggests that perhaps, at this
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age, students’ attitudes do not affect the amount of exposure to and input in the minority language they receive.

The patterns found here, if extended through older children, may corroborate previous research with adult heritage speakers who say they regret abandoning the minority language for either familial or professional reasons (Fuller 2007; Kondo 2002; Shenk 2008). However, studies with middle school and high school children, as well as longitudinal data, are necessary to determine conclusively whether this pattern continues throughout childhood. These findings should encourage parents and dual language educators not to give up speaking the minority language to their children, since, possibly as early as fifth grade, they may start to appreciate it.

When comparing attitudes across different contexts, we see that children have very clear ideas about when it is appropriate to use each language, showing a preference for Spanish at home, ambivalence on the playground and a preference for English in the classroom. Overall results may then not be a reflection of the child’s negative attitude toward the minority language, but simply a reflection of their reality in which more contexts require the use of English than of Spanish. However, this would not explain the differences based on age, since all of these children should be required to use English and Spanish in the same contexts.

Finally, the results from the matched guise task suggest that children at this age do not project their preferences for one language or the other onto speakers in the community. This may be because, while these children do not prefer to speak the minority language, they are surrounded by many loving figures that are Spanish speakers. It, therefore, may be possible for these children to separate their attitudes toward the language and toward the speakers of that language. It may also be the case that children this young do not understand how to rate people based on their speech and, to some degree, rated each speaker randomly, even though children appeared to take the task seriously. More data from matched guise tasks with young children is necessary to rule out this possibility. Additionally, this study and similar studies are limited by the application of this methodology (although its application is quite common as mentioned above), since it is unclear whether rating speakers in this way is natural for children or, in fact, leads them to begin judging people in this way, which may be an unintentional consequence of research of this type. Therefore, despite the fact that this methodology has come to be common practice in attitude research does not mean that it is valid and more justification is needed in order to confirm or reject trends found using matched guise tasks.

Overall, these results suggest that after initial exposure to English-language schooling, children develop a strong preference for the majority language. The preference shift seems to be related to the age of dominance shift, but it is not clear whether causation is present. Nevertheless, this pattern may reverse itself as children age, suggesting that the first years of elementary school (second, third,
and fourth grade) are the most detrimental to the minority language in terms of attitude shift. These children also clearly understand when, where and with whom it is appropriate to use each language even by the time they are in Kindergarten, evidenced by their strong preference for English in the classroom, Spanish at home and either one on the playground. Finally, elementary school students do not project negative attitudes onto the actual speakers of the language and only prefer English in terms of language use, not necessarily prestige.

The results of this study have important implications for the future of bilingual education programs and language planning advocates. Specifically, children should not be forced to quickly abandon Spanish during their first years of elementary school, if at all possible, since this is precisely the time when they are already the most sensitive to the minority status of their home language. It is possible that, if Spanish is seen as more acceptable in the school setting, this rapid shift in attitudes may be ameliorated or even avoided. Bilingual educators should focus on school-sponsored programs, which promote the use of both languages and express the value of speaking two languages. Additionally, trips to a country in which the minority language is spoken and the development of peer networks in the minority language may authentically motivate children to continue to develop their Spanish.

While research has consistently shown that language shift is a natural phenomenon in the U.S. occurring between the second and third generation of immigrants, variability in proficiency is the hallmark of the second generation (Carreira and Kagan 2011; Hakuta and D’Andrea 1992). Although it may not be possible to stop the tide of language shift, it is possible to increase the numbers of second-generation immigrants who are bilingual and bicultural, creating a stronger and more dynamic United States.

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## Appendix A. Attitude attribution measure

Please circle the face that represents how you think each person feels in each situation.

<table>
<thead>
<tr>
<th>Question</th>
<th>☺</th>
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</tr>
</thead>
<tbody>
<tr>
<td>How do you feel about using Spanish at home?</td>
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<tr>
<td>How do you feel about using English at home?</td>
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<tr>
<td>How do you feel about using Spanish on the playground?</td>
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<tr>
<td>How do you feel about using English on the playground?</td>
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<td>☻</td>
<td>☻</td>
</tr>
<tr>
<td>How do your classmates feel about you using Spanish at home?</td>
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<td>☻</td>
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<tr>
<td>How do your classmates feel about you using English at home?</td>
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<tr>
<td>How do your classmates feel about you using Spanish in class?</td>
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<tr>
<td>How do your classmates feel about you using English in class?</td>
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<tr>
<td>How do your classmates feel about you using Spanish on the playground?</td>
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<tr>
<td>How do your classmates feel about you using English on the playground?</td>
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<td>How does your teacher feel about you using Spanish at home?</td>
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<td>How does your teacher feel about you using English at home?</td>
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<td>How does your teacher feel about you using Spanish in class?</td>
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<td>How does your teacher feel about you using Spanish on the playground?</td>
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<td>How does your teacher feel about you using English on the playground?</td>
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<td>How do your parents feel about you using Spanish at home?</td>
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<td>How do your parents feel about you using English at home?</td>
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<td>How do your parents feel about you using Spanish in class?</td>
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<td>How do your parents feel about you using English in class?</td>
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<td>How do your parents feel about you using Spanish on the playground?</td>
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<tr>
<td>How do your parents feel about you using English on the playground?</td>
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</tbody>
</table>
Appendix B. Matched guise score sheet

Rate the people you hear in each of the following categories. Give them a score from 1 to 5 by circling a number.

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<th>3</th>
<th>4</th>
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<td>Lower Class</td>
<td>Upper Class</td>
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</tbody>
</table>
Appendix C. Test de vocabulario imágenes peabody example

Tester says “Show me candy.” If child points to picture number 3 or says “three”, this answer is counted as correct. If not, the child receives a 0. The test continues until both a baseline and ceiling are found.

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maintenance and literacy development among 2nd generation Hispanic immigrants including attitudes, socioeconomic status, educational support for the minority language, birth order and travel to countries where the heritage language is spoken.

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