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How childhood languages shape future language use and cultural orientation¹

Dewaele, Jean-Marc (Birkbeck, University of London) j.dewaele@bbk.ac.uk

Heredia, Roberto (Texas A&M International University) rheredia@tamiu.edu

Cieślicka, Anna (Texas A&M International University) anna.cieslicka@tamiu.edu

Corresponding author:

Jean-Marc Dewaele

Department of Applied Linguistics and Communication,

Birkbeck, University of London,

26 Russell Square

WC1B 5DT, London

UK

Abstract

In this paper we investigate the effect that parents' language use (English, Spanish-English or Spanish) had on self-perceived proficiency, frequency of use, language anxiety, code-switching and cultural orientation of 206 Spanish-English bilinguals and multilinguals (174 females, 32 males) who were students at Texas A&M International University. English is the dominant language in Texas, with a strong presence of Spanish, the minority language. Our results showed that languages that parents had used with their children had a privileged status: bilinguals and multilinguals reported higher levels of proficiency, more frequent use, less anxiety (except for English) and a stronger cultural orientation. The effect was strongest for parents with Spanish-speaking parents. The scores of the simultaneous bilinguals were generally situated between the scores of the sequential Spanish-English and English-Spanish bilinguals from monolingual families. Referring to the butterfly effect in Chaos theory, we conclude that relatively more or less use of a particular language in a family home will lead to significant differences in the grown-up children's future language use and cultural orientation.

Keywords: proficiency, frequency of use, language anxiety, code-switching, cultural orientation

Word count: 7300

Introduction

How proficient children become in languages used at home depends on a range of factors, including the parents' language use and their attitudes towards the languages. It also depends on the status of the languages outside the home and the reigning language ideologies. In homes where parents use one minority language and the majority language, the children's knowledge of the minority language will typically be weaker than their knowledge of the majority language which they use with a wider range of people. The situation is slightly different when one or two minority languages are used at home. In this configuration the home is like a linguistic island,

¹ Accepted version -to appear- 2020 in *Multicultural Education Review*

where children are more likely to reach high levels of proficiency in the minority language(s). However, children usually end up becoming dominant in the majority language, especially if it is the language of schooling and friends. Both parents and children are exposed to the language ideologies outside the home, which will influence their views, and, potentially, their family language policy (Blommaert, 1999; King & Fogle, 2016). The arrival of siblings can also threaten the exclusive use of minority language(s) in the home, with children using the majority language between themselves (Barron Hauwaert, 2011), which could metaphorically be compared to a temporary or semi-permanent flooding of the linguistic island by the majority language. King and Fogle (2016) showed that recent research on family language policy has put a greater emphasis its dynamic nature: “including the importance of child agency and identity choices; and more attention to trilingualism or multilingualism” (p. 1).

The languages of bilingual and multilingual children do not just have a social status or prestige, they also have a strong individual emotional status. The first language/s (L1) that babies are exposed to, and that become the language/s of communication with family members acquire a unique status. The L1 has been described as being typically the “language of the heart” (Dewaele, 2013, 2015), characterised by increased automaticity of affective processing and heightened electrodermal reactivity to L1 emotion-laden words (Pavlenko, 2012). Those who acquire a foreign language (LX) later in life typically report the language as being less emotional, more detached and cognitively disembodied. The language of the heart could also be the culture of the heart, as language is always linked to cultural values and practices. The language parents use with their children is typically linked with books being read, films or television channels being watched, music being listened to, jokes being told, food being prepared, religious practices being observed, political views being expressed. In other words, children absorb much more than just language from their parents.

If children absorb two or more languages, they also absorb two sets of cultural values and identities. We know from the research that the languages and cultural values interact in the mind of the bilingual or multilingual (Cook 2002; Dewaele & Salomidou, 2017; Grosjean, 2010). Cook (2012) describes these individuals as being multi-competent, they possess ‘the knowledge of more than one language in the same mind or the same community’ (p. 1), by which he means ‘everything a single person or a single community knows about all the languages they use’ (p. 1). The interesting aspect of this concept is that it transcends language: ‘Multi-competence therefore involves the whole mind of the speaker, not simply their first language (L1) or their second’ (p. 1). Multi-competence can emerge as at any age, even if a language is acquired later in life, it alters the individual’s mind in ways that go beyond the actual knowledge of language itself (Cook, 2002: 7).

Faced with the enormous diversity of bilinguals and multilinguals, researchers could conclude that each individual’s linguistic trajectory is unique and that no generalisation is possible. These researchers privilege case-studies, taking an emic approach, and trying to understand the language profile and language preferences of a small group of individuals. Other researchers have adopted an etic view and seek to identify and explain sources of individual differences among relatively large groups of bilinguals and multilinguals. We argue that both approaches are legitimate and that an exclusive focus on one or the other would rob the field of either depth or width in the research.

In the present paper we adopt an etic perspective, investigating the effect of a single independent variable, parents' language use on a number of dependent variables reflecting Spanish-English bilinguals and multilinguals' self-perceived oral proficiency, frequency of use, language anxiety and cultural orientation in both languages, as well as code-switching. Participants were Texan university students. Texas is a state in the US with 26.1 million residents that consisted in 2012 of 10 million Latinos (38.2% of the total) and 11.6 million non-Hispanic whites (44.4%, of the population) (U.S. Census Bureau's American Community Survey). In other words, Spanish is a very large minority language in Texas but the US itself has English as the majority language. One of the most salient characteristics of language usage in Spanish-speaking Texas communities is the prevalence of code-switching, where everyday mixing of Spanish and English is a norm, despite the still present misconception that such practice reflects lack of language skills or improper education. Far from being solely a feature of language interaction, code-switching in Texan Spanish-English bilinguals plays an important role in negotiating social identity (Sayer, 2012). Bilinguals' language practices in Texas are linked to language ideologies that circulate at a national level (e.g. views of Spanish in the US mixed up with views and national discourse on immigrants from Mexico and Central America), but also at a local level (e.g. the value of Spanish as cultural capital in the speech community in Laredo).

A question that has not yet been addressed to our knowledge, is whether bilinguals and multilinguals defined as "speakers who use two or more languages in their everyday lives" (Pavlenko, 2012: 406) who learned two languages simultaneously (e.g., in bilingual families) or sequentially (e.g., outside the home) have different perceptions of their languages and cultural identity, and different code-switching frequencies. The Texan context is ideal to answer this question as many Texans grew up with either Spanish or English or both languages simultaneously at home.

1. Literature review

Although Grosjean (2010) argues that "one should be careful... not to think that the bilingual's first language, or mother tongue, is the stronger, most fundamental language; [that] it really depends on the individual's language history" (p. 90). It seems that the L1(s) typically are the dominant languages and that they very often enjoy a privileged status among the bilinguals' languages. Pavlenko (2014) defined language dominance as the "overall level of language activation that creates the impression of fluency and ease of lexical retrieval and syntactic processing (may vary by domain)" (p. 23). The L1(s) and languages acquired later in life are differentially embodied, with the L1(s) having more emotional resonance whereas LXs tend to be processed semantically but less so affectively. The most likely explanation is that the LXs are typically acquired in the foreign language classroom in a decontextualized way. Contrary to L1 acquisition where there are ample opportunities to integrate all sensory modalities and verbal conditioning, LX acquisition lacks the rich web of emotional memories involving sounds, view, smell and sound (Pavlenko, 2012). The LX words and expressions thus feel "disembodied" words, and LX users do not experience their impact as L1 users do (Dewaele, 2004, 2008, 2011, 2013; Pavlenko, 2005, 2012). Bilinguals or multilinguals may have very different attitudes towards their different languages. Dewaele (2013) found that multilinguals felt that languages they had acquired earlier in life were typically more colourful, richer, more poetic and

more emotional. Considering the effect of background variables on self-rated proficiency levels and language attitudes in a specific context, Dewaele (2012) and Dewaele and Pena Diaz (2018) collected quantitative data about Spanish, Galician, English and French from 122 Galician students in La Coruña. Statistical analyses revealed that self-perceived proficiency scores were linked to a wide range of independent variables in Galician, English and French (but not Spanish, the dominant language of almost all participants) and that the same independent variables did not necessarily have similar effects across these three languages. A higher self-perceived proficiency in that Galician was linked to a bilingual Spanish-Galician upbringing, education in bilingual Spanish-Galician schools, an early age of onset of learning, number of languages known and more positive attitudes. In a separate study on the same database, Dewaele and Pena Diaz (2018) considered the sources of individual variation in attitudes towards Spanish, Galician, English and French. A bilingual upbringing was found to significantly more positive attitudes towards Galician and more negative attitudes towards Spanish. The type of school (monolingual or bilingual) had no effect on any language. Participants who had started with Galician at a younger age had more positive attitudes towards that language. Exposure to French and English through television or visits to France or the UK corresponded with more favourable attitudes towards these languages. A clear age effect also emerged, with older participants having less favourable attitudes towards Galician and more favourable attitudes towards Spanish.

Bilinguals or multilinguals' anxiety levels can also vary dramatically in their different languages or varieties. Anxiety is typically lowest in the L1 and gradually higher in LXs acquired later in life (Dewaele, 2013). The situation is more complex for bilingual and multilingual immigrants and their (grand-)children. Sevinç and Dewaele (2018) distinguished heritage language anxiety from majority language anxiety in 116 bilinguals and multilinguals belonging to three generations of the Turkish immigrant community in the Netherlands. First- and second-generation immigrants reported significantly higher levels of majority language anxiety when speaking Dutch with or around Dutch people, while second- and predominantly third-generation immigrants suffered more from heritage language anxiety when speaking Turkish with family members in the Netherlands and especially when talking Turkish on holiday in Turkey. Jiang and Dewaele's (2018) study of language anxiety among 778 Beijing university students who speak Chinese dialects and Putonghua showed that participants who had grown up using Chinese dialects but had become dominant in Putonghua through schooling, experienced significantly more anxiety using their dialects.

A distinctive phenomenon that characterises bilinguals and multilinguals is code-switching, i.e. 'changes from one language to another in the course of conversation' (Li Wei, 2007: 14). Dewaele and Li Wei (2014) collected data on self-reported frequency of code-switching from 2116 multilinguals. They found that frequency of code-switching is linked to the type of interlocutor, with most code-switching being reported in interactions with friends, followed by interactions with colleagues and family members, and infrequent use of code-switching in interactions with strangers. Frequency of code-switching was also linked to multilingual childhoods, working in multilingual environments, early multilingualism and advanced proficiency in various languages. Female participants, extraverts and those with higher levels of cognitive empathy also reported more code-switching. Indeed, code-switching is commonplace in everyday conversations of Spanish-English bilinguals in U.S. border states, for example, where the extensive practice of

language mixing observed in bilingual speakers has been referred to as “Spanglish” (Sayer, 2008) or “TexMex”, which exemplifies the case of languages in contact (Sayer, 2008; 2013). The mixing of English and Spanish can manifest itself on three levels. First, it includes many loan words, i.e., lexical items borrowed from one language and phonologically integrated into the other language (e.g., *troca* for *truck*, instead of *camioneta*, or *parquear* for *park* instead of *estacionar*).

Second, TexMex is characterised by the presence of calques, where the syntactic structure of one language is mapped onto the other, resulting in what is considered in L2 acquisition theory as cross-linguistic transfer (Odlin, 2003; Nicoladis, 2006). For example, based on the Spanish construction “el zapato de mi papa”, a Spanish-English bilingual child might be more likely to say “the shoe of my father”, which reflects the Spanish word order, rather than the more appropriate “my father’s shoe” (Nicoladis, 2008: 172) or the classic expression, “I need to pay the light” from Spanish, “necesitamos pagar la luz, instead of the most “standard” English expression, “we need to pay the electricity bill.” Finally, code-switches are ample and they can include lexical items (either single words or entire phrases) alternating across sentence boundaries, also known as intersentential switches (e.g., “Ahora es buena hora para dormir [It is now a good time to sleep]”. “Turn off the lights”. (Hughes et al., 2006, p. 12) or switches made within the same sentence, known as intrasentential switches (e.g., “Dame una hamburguesa sin lettuce por favor” [“Give me a hamburger without lettuce please”] (Heredia & Altarriba, 2001: 164).

Even if these TexMex (or code-switching) characteristics are shared by all bilingual speakers across South Texas, their bilingual abilities are far from homogenous and vary as a function of their linguistic proficiency in both languages (Sayer, 2013). Specifically, many of the Spanish-English bilinguals differ in their command of literacy skills in both Standard American English and Standard Spanish and whether they acquired both languages simultaneously or sequentially. Bilinguals’ language use can thus be situated somewhere along a continuum depending on the context, and may or may not include just the standard variety of Spanish and English. Briefly, simultaneous bilingualism is the acquisition of two languages occurring prior to 4 years of age, whereas sequential or successive bilingualism refers to the linguistic development of a child whose L1 is relatively established before the learning of L2 starts, roughly after the age of 4 (Heredia & Cieřlicka, 2014). Another widely maintained distinction in the bilingual literature is that between early and late bilingualism, corresponding to the acquisition of L2 early in life or later in life after childhood, but the cut-off criteria vary widely in different bilingual studies. To cater to those inconsistencies, Heredia and Cieřlicka (2014) suggest applying the sequential bilingualism cut-off point of 4 years of age, where early bilingualism refers to the acquisition of L2 after 4 and before 12 years of age and late bilingualism to the acquisition of L2 after the age of 12 years. Finally, with regard to the degree of proficiency, balanced bilinguals are individuals with equal proficiency in both languages, while dominant bilinguals develop higher proficiency in their dominant language and lower levels of proficiency in their weaker language.

While the traditional, “deficiency” view of code-switching would attribute it to linguistic or grammatical deficiency, extensive research (e.g., Myers-Scotton, 1993) shows that intrasentential code-switching is governed by important linguistic as well as social constraints. The former are located at the pre-phrase structure level in the mental lexicon and determine the morphosyntactically permissible forms of code-switches. Linguistic constraints in code-switching permit only those structures that are grammatically correct in both languages. Quite counterintuitively to the deficiency

view of code-switching, research also shows that the most frequent code-switchers are most often highly proficient and balanced bilinguals (Dewaele, 2013; Martínez-Roldán & Sayer, 2006). In addition, it has been noted (Heredia & Altarriba, 2001) that bilinguals might resort to code switching as a deliberate strategy aimed at improving communication, for example in cases where a particular concept might be more apt and expressed better in one language rather than the other. The case in point is, for example, the Spanish word *cariño*, which has no direct English translation equivalent and which has the connotation of “liking” that is lacking in English. Resorting to a code-switch in such a case has been referred to by Chan (2004) as a “textualization cue”, informing the interlocutor of the need to interpret the code-switched element differently than the remainder of the ongoing conversation.

One important aspect of bilingualism is that it is not merely a linguistically- or cognitively-based phenomenon, but, more importantly, a socially based communication system (Vega, 2008). Children growing up in a bilingual home and acquiring their L1 or languages will adopt not only language practices and socialization patterns of their parents and caretakers, but also the attitudes toward those languages present in their speech community. Hence, if language mixing is common in a bilingual child’s home, the child will routinely code-switch. In addition, if bilingualism and biculturalism is a prevailing model during childhood, the children will also become bilingual and bicultural (Sayer, 2008).

From the point of view of the social identity theory (Tajfel, 1981), perceptions of bilingualism are determined by attitudes of the in-group and out-group. On this view, people form strong bonds with members of their own social group (in-group), while distancing themselves from external groups (out-group). With language being an important marker of social identity, in cases where bilingualism is part of the in-group identity, it will be accepted and highly valued. On the other hand, in contexts where bilingualism identifies out-group only, it might lead to negative perceptions and discrimination. In situations where a minority (out-group) speaks a language that is different from a majority (in-group), as is the case for Spanish speakers in the U.S., bilingualism is necessitated for the minority group to function successfully. This is further exacerbated by unequal power status, where the majority (in-group) has a high status, whereas the minority (out-group) is viewed negatively as a low status group, mostly through stereotyping and erroneous generalizations (Vega, 2008).

Whereas early history of the U.S. immigration has been characterised by pressures exerted on immigrants to assimilate and acculturate, today in an era of increased immigration and globalization, there is a hope that society’s attitude toward multiculturalism and bilingualism might become increasingly positive (Vega, 2008). In addition, with the explosion of the immigrant population since the 1980s and, in particular, the profound growth of the U.S. Latino population, which remains the largest linguistic and ethnic minority group in the U.S., efficiency of assimilationists policies has become highly questionable. This is particularly true of the U.S. Southwest, which has the highest concentration of the Latino population in the United States (Peréa & García Coll, 2008). Laredo, Texas located on the US/Mexican border is a perfect illustration of the complex linguistic situation of this vibrant bilingual community. The overwhelming majority (97%) of Laredo's population (around 250,000 inhabitants [U.S. Census Bureau 2015]) are of Hispanic descent who most typically grew up speaking and mixing both languages on a regular basis. In fact, based on the American Community Survey Report of 2011, Ramos and Sayer (2016) note that Laredo is the “most bilingual city in the United States” (p. 2), in that 92.1% of the Laredoan households report speaking a language different than English at

home, and 98.8% of those households include Spanish-speaking families (Ryan, 2013).

As Pletsch De García (2008) points out, the linguistic situation in Laredo is unique, as both Spanish and English share the same prestige and each is considered appropriate for public domains, traditionally reserved only for the High variety. Along the same lines, both can be heard successfully employed in the domains reserved for the Low variety. In addition, code-switching itself has made its way to the public (High variety) domains. In spite of its location within the territory of the United States and the public education in Texas encouraging a rapid transition to monolingualism in English, Laredo is known for maintaining its Spanish language and Hispanic customs. Unlike the traditional immigration three-generation pattern of linguistic development (Shin & Alba, 2009) where dominance in heritage language (i.e., the language spoken in an immigrant's country of origin) changes to bilingualism in the second generation and L2 monolingualism by the third generation, maintenance of Spanish in Laredo is motivated by social ties between Hispanic speakers and their extended families in Mexico, as well as continued immigration from Mexico.

Everyday language practices in Laredo are a unique case of fusion between the two languages, or an example of stable bilingualism, in that no clear norms are present regarding which language should be used in which social situation. In fact, a visit to the bank, a supermarket, a doctor's office, or a local business clearly shows that both English and Spanish are used interchangeably between employees and with customers, with no clear delineation of which would be considered a High and which a Low variety (Ramos & Sayer, 2016). Those bilingual practices, where code-switching appears to be the norm and language choices negotiated on a moment-to-moment interactional basis, have been referred to as translanguaging (Ramos & Sayer, 2016). Given its unique bilingual and bicultural character, Laredo and its translanguaging bilingual population are an ideal place to investigate code-switching and cultural identity and their correlations with language practices and language acquisition history.

The purpose of the present investigation is to provide answers to the following research questions:

- 1) Is there an effect of participants' home language(s) on levels of self-perceived proficiency, frequency of use, language anxiety, code-switching and cultural identity?
- 2) Do simultaneous Spanish-English bilinguals from bilingual families report different levels of self-perceived proficiency, frequency of use, language anxiety, code-switching and cultural identity compared to sequential Spanish-English and English-Spanish bilinguals from monolingual families?

2. Methods

2.1. Participants

A purposeful sampling method was used. Participants who were at the second and third authors' institution were invited to complete an anonymous online questionnaire. The opening paragraph of the questionnaire explained that the aim of the research was to gain a better understanding of links between culture and linguistic behavior of people having some knowledge of at least two languages. The research design and questionnaire received ethical clearance from the university's institutional review board (IRB).

A total of 206 Spanish-English bilinguals and multilinguals (174 females, 32 males) participated in the study. Their age ranged from 18 to 70 years (Mean = 25.6, SD = 8). Most were of American nationality (n = 184), other were Mexicans (n = 13) with smaller groups of other Latin Americans. Almost all were resident in Laredo (n = 202). A large majority reported being bilingual (n = 173, 84%), with fewer trilinguals (n = 21, 10%), quadrilinguals (n = 8.4%), pentalinguals (n = 3, 1.5%) and one sextalingual. Most were BA university students (n = 186, 90%), with a few MA students (n = 7, 3%) and PhD students (n = 13, 6%).

2.2. The dependent variables

Participants were asked to rate their self-perceived oral proficiency in English and Spanish on a 7-point Likert scale. The question was formulated as follows: “On a scale from 1 (minimal fluency) to 7 (full fluency) how do you rate yourself in oral skills in Spanish and English?” They reported high levels of oral proficiency in both languages (English: Mean = 6.5, SD = 1; Spanish = 5.8, SD = 1.4).

A 5-point Likert scale enquired about participants’ frequency of use of English and Spanish. It was formulated as follows: “How frequently do you use English/Spanish?” Possible answers included: 1=Never 2=Rarely 3=Sometimes 4=Frequently 5=Always. An analysis of the means revealed that they also used both languages frequently (English: Mean = 4.7, SD = 0.6; Spanish = 4.2, SD = 1).

A composite score of 4 items reflected language anxiety. The items were phrased as follows: “How anxious are you when speaking English/Spanish with some friends, family members, strangers and teachers?” Possible answers ranged from “not anxious at all” to “highly anxious” on a 5-point Likert scale. A Cronbach alpha analysis showed high reliability for the Spanish items (.89) and for the English items (.96). Anxiety levels were low for both languages (English: Mean = 1.8, SD = 1.1; Spanish = 2, SD = 1).

Four items enquired about frequency of code-switching on a 5-point Likert scale (ranging from “never” to “always” with different interlocutors (friends, family, strangers, teachers). A Cronbach alpha analysis showed high reliability (.82). Participants reported moderate amounts of code-switching (Mean = 2.8, SD = 0.9).

The last dependent variables were cultural identity of participants, one for “Latino” orientation, the other for “Anglo-American” orientation (Cuéllar, Arnold & Maldonado, 1995). The variable was the average score on a 5-point Likert scale of 15 items for the Latino and 15 items for the Anglo-American orientation (see appendix).

A Cronbach alpha analysis showed high reliability for the Latino orientation items (.90) and for the Anglo-American orientation items (.81). Participants had relatively high values on both orientations (Anglo-American: Mean = 3.9, SD = 0.6; Latino: 3.7, SD = 0.8). Interestingly, no correlation existed between both orientations ($r(204) = .05$, $p = ns$).

2.3. The independent variable

The type of family linguistic environment in which the participants grew up is our independent variable. The question was formulated as follows: “What language(s) did you parents speak to you when you were a child?”

The largest group reported that their parents used only Spanish with them (n = 122, 59%), the second largest group reported a mixed Spanish-English environment (n = 47, 23%), with the remaining 37 participants (18%) reporting parents speaking only English with them. We will refer to them as the sequential Spanish-English bilinguals from monolingual families, the simultaneous Spanish-English bilinguals

from bilingual families and the sequential English-Spanish bilinguals from monolingual families,

Because family linguistic environment might be linked to other independent variables, such as onset of acquisition and context of acquisition, we checked at what age and how participants had acquired their L2. Participants with the Spanish-speaking parents started learning English at age 6 ($SD = 4$), mostly at school ($n = 77$, 63%) while the others picked up English in the community ($n = 41$, 34%). Participants with the English-speaking parents started learning Spanish at the age of 12 ($SD = 8$), mostly at school ($n = 25$, 68%) while the others picked up Spanish in the community ($n = 10$, 27%).

The sociobiographical profile of participants was broadly similar in the three groups: The sequential Spanish-English bilinguals from monolingual families consisted of 83% females, with a mean age of 26 and 95% were BA students. The simultaneous Spanish-English bilinguals from bilingual families consisted of 89% females, with a mean age of 24 and 98% were BA students. The sequential English-Spanish bilinguals from monolingual families consisted of 80% females, with a mean age of 28 and 65% were BA students.

Results

One-way ANOVAs revealed that the participants' home language(s) had a significant effect on levels of self-perceived oral proficiency in English $F(2, 203) = 3.9, p < .022, \eta^2 = .037$ and a highly significant effect in Spanish $F(2, 202), F = 38.3, p < .0001, \eta^2 = .275$. According to Cohen's (1988) guidelines, the effect size for English is small while the effect size for Spanish is large. Gabriele post-hoc analyses showed that those growing up in English-speaking families scored significantly higher on English oral proficiency than those growing up in Spanish-speaking families ($p < .033$). The difference with those growing up in bilingual families was not significant. Gabriele post-hoc analyses also revealed that those growing up in Spanish-speaking families scored significantly higher on Spanish oral proficiency than those growing up in English-speaking families ($p < .0001$) and those growing up in bilingual families ($p < .0001$; see figure 1).

Figure 1: The effect of home language(s) on self-perceived proficiency in English and Spanish

Two one-way ANOVAs showed that participants' home language(s) had a significant effect on levels of self-reported frequency of use of English $F(2, 201) = 3.7, p < .027, \eta^2 = .035$) and a highly significant effect in Spanish $F(2, 201) = 46, p < .0001, \eta^2 = .314$). Here again the effect size for English can be described as small while the effect size for Spanish is large (Cohen, 1988). Gabriele post-hoc analyses showed that those growing up in English-speaking families reported significantly more use of English than those growing up in Spanish-speaking families ($p < .023$). The difference with those growing up in bilingual families was not significant. Gabriele post-hoc analyses also revealed that those growing up in Spanish-speaking families scored used Spanish significantly more frequently than those growing up in English-speaking families ($p < .0001$) and those growing up in bilingual families ($p < .0001$; see figure 2).

Figure 2: The effect of home language(s) on frequency of use of English and Spanish

One-way ANOVAs showed that participants' home language situation had no effect on anxiety levels in using English $F(2, 201) = 1.1, p = ns$) but had a significant effect in Spanish $F(2, 200) = 5.5, p < .005, \eta^2 = .052$). The effect size for Spanish is small (Cohen, 1988). Gabriele post-hoc analyses showed that those growing up in Spanish-speaking families were significantly less anxious in Spanish than those growing up in English-speaking families ($p < .004$). No significant difference emerged between those growing up in Spanish-speaking families and those in bilingual families) (see figure 3).

Figure 3: The effect of home language(s) on language anxiety in English and Spanish

A single one-way ANOVA showed that participants' home language(s) had a significant effect on self-reported amount of code-switching $F(2, 197) = 4.4, p < .014, \eta^2 = .043$). This corresponds with a small effect size (Cohen, 1988). Gabriele post-

hoc analyses showed that those growing up in Spanish-speaking families reported significantly more code-switching than those growing up in English-speaking families ($p < .015$) but not more than those who grew in bilingual families (see figure 4).

Figure 4: The effect of home language(s) on self-reported frequency of code-switching

Two one-way ANOVAs showed that participants' home language(s) had a highly significant effect on levels of Anglo-American orientation $F(2, 201) = 13.4, p < .0001, \eta^2 = .118$ (a medium effect size) and a highly significant effect on Latino orientation $F(2, 201) = 56.1, p < .0001, \eta^2 = .358$, which is a very large effect size (Cohen, 1988). Gabriele post-hoc analyses showed that those growing up in English-speaking families reported a significantly stronger Anglo-American orientation than those growing up in Spanish-speaking families ($p < .0001$). However, there was no difference between those growing up in English-speaking families and those growing up in bilingual families. A significant difference also appeared between those growing up in Spanish-speaking families and those growing up in bilingual families ($p < .003$) (see figure 5) A final series of Gabriele post-hoc analyses showed that those growing up in Spanish-speaking families reported than a significantly stronger Latino orientation than those growing up in English-speaking families ($p < .0001$) and those growing up in bilingual families ($p < .042$) (see figure 5).

Figure 5: The effect of home language(s) on strength of Anglo-American and Latino cultural orientation

3. Discussion

The first research question asked whether participants' home language(s) were linked to levels of self-perceived proficiency, frequency of use, language anxiety in both languages, to self-reported frequency of code-switching and cultural identity. The answer is affirmative, with important differences in effect size for the independent variables in the two languages (see table 1 for an overview). The effect sizes were small to medium for Spanish and medium to (very) large for Spanish according to the traditional interpretation by Cohen (1988) (see Norouzian & Plonsky (2018) for a discussion on the interpretation of eta-square in L2 research).

Table 1: Overview of the effects of participants' home language(s) on the dependent variables

	English	Effect size	Spanish	Effect size
Oral proficiency	*	small	***	large
Frequency of use	*	small	***	large
Anxiety	ns	none	**	small
Cultural orientation	***	medium	***	large
Code-switching	*	small		

ns = $p > .05$, * $p < .05$, ** $p < .01$ *** $p < .0001$

The effect of parents speaking Spanish with their children has a stronger effect than those speaking English with them. This is undoubtedly linked to the status of both languages in Texas. Despite being widely used, and the presence of TEXMEX, Spanish is a minority language while English is the dominant language. It means that having Spanish as the sole home language strengthens perceptions of oral proficiency, boosts frequency of use, dispels anxiety, increases code-switching and the feeling of belonging to the Latino community. While the same patterns appear in English for participants who were addressed only in English by their parents, it is much weaker and there is less code-switching. In other words, speaking the dominant language in the home has a weaker effect on the oral proficiency, frequency of use of that

language, no effect on anxiety, and a more limited effect on the feeling of belonging to the Anglo-American community. The status of the home language is the obvious cause of these differences. Speaking a minority language is distinctive; speaking the majority language is not. Having both parents speaking Spanish to their children may have allowed them to become highly proficient, confident and proud of their linguistic and cultural heritage. Outside home they had ample opportunities to engage with fellow Spanish speakers, and yet, living in a dominant English-speaking environment, they had no trouble in picking up English and Anglo-American values. This reflects the findings of Dewaele (2012) and Dewaele and Pena Diaz (2018) based on Galician multilinguals who were dominant in Spanish, where the home language, education in bilingual Spanish-Galician schools, an early age of onset of learning, number of languages known had a statistically significant effect on attitudes and self-rated proficiency in the minority language (Galician) but had no effect on the majority language (Spanish).

The cultural orientation did not appear as a binary choice, as the lack of correlation between values on the Latino and the Anglo-American orientation dimensions showed. In other words, the position on one dimension was unrelated to the position on the other dimension. Moreover, participants reported high scores on both dimensions. Our participants could thus be described as bicultural bilinguals (Grosjean, 2015).

Having both parents speaking English to their children had less effect on their proficiency, confidence and pride in their linguistic and cultural heritage because English being the dominant language, this is the default position in the local society. English is assumed to be shared by everybody so there is no obvious external threat or perceived need to emphasize this. Of course, our group of participants raised in English is not a representative sample of the general population, if only because they learned Spanish later. This could be linked to positive attitudes that their parents had towards the Latino community.

The second research question asked whether simultaneous Spanish-English bilinguals from bilingual families reported different levels of self-perceived proficiency, frequency of use, language anxiety, code-switching and cultural identity compared to Spanish-English and English-Spanish bilinguals from monolingual families. The results show that the values of simultaneous Spanish-English bilinguals from bilingual families were always situated between those of Spanish-English and English-Spanish bilinguals from monolingual families. Differences were significant only between the simultaneous Spanish-English bilinguals from bilingual families and Spanish-English bilinguals from monolingual families (for oral proficiency in Spanish, frequency of use of Spanish and Latino orientation). In other words, the simultaneous Spanish-English bilinguals from bilingual families were closer to the values of the English-Spanish bilinguals from monolingual families. This could be linked to the fact that having the dominant language in the home lowers the use of the minority language and the culture attached to it. Metaphorically one could compare those who only spoke the minority language at home as one island among others surrounded by water. Those who used both the minority and the majority language at home were more like sandbanks covered regularly by the tide. This finding replicates a classic observation in research on multi-competence where bilinguals are found to occupy an intermediate position between monolingual controls (Cook, 2012). The difference with our study is that our participants are all bilinguals or multilingual, and hence all multi-competent. Yet, even within that bilingual population a continuum appears, with Spanish-English and English-Spanish bilinguals from monolingual

families occupying the extreme end of the dimensions, and the simultaneous Spanish-English bilinguals from bilingual families occupying more or less the middle of the dimension, but leaning slightly towards the English end.

One limitation of the present study is the reliance on self-report for code-switching. We know that bilinguals often are not fully aware of the extent of their code-switching. To the extent that they are aware, they may be inclined to under-report their code-switching because it is often stigmatized, even in bilingual communities. Mixing mid-sentence might feel to some as indexing language deficiency, strengthening a reluctance to admit they code-switch. Another limitation is inherent to the use of categories, which are crucial to carry out statistical analyses, but which may create a false impression of a clear-cut and static reality. We acknowledge that individuals often do not neatly fit in categories. Some of our participants may have lived in different families with different family language policies. It is equally possible that family language policies shifted over time. Despite these limitations, we feel that it is important to be able to make some generalisation about the effect of the independent variables on our dependent variables while acknowledging that these at best trends and that multilingualism is by definition messy and dynamic.

Conclusion

Childhood languages (English, Spanish or both) were found to have shaped our participants' judgments of their knowledge of English and Spanish, their frequency of use of both languages and their cultural orientation. The home language/s had retained a privileged status with participants feeling more proficient in them, using them more frequently, feeling less anxious when using Spanish, and identifying more strongly with their linguistic/cultural community.

The home language/s effect was strongest for participants with Spanish-speaking parents, which could be a consequence of the salience of speaking a minority language. In other words, it seems that when the home language is also the dominant language of society, the effect of the home situation on mastery and frequency of language use will be weaker in this particular context. This reflects earlier research in a different context (Dewaele, 2012; Dewaele and Pena Diaz, 2018).

A comparison of the Spanish-English and English-Spanish bilinguals who grew up monolingually and the simultaneous Spanish-English bilinguals whose parents used both Spanish and English, showed that the values of the latter for language proficiency, frequency of use, anxiety and cultural orientation were generally situated between the values of their peers from monolingual families, with a tendency to lean towards the English end of the dimensions.

To conclude, we completely agree with the researchers cited in King and Fogle (2016) that family language policies of multilingual families are dynamic systems. Where these researchers looked at change in the system over a period of weeks or months, we considered the consequences of (relatively) small variation in initial conditions on language use and attitudes of the grown-up children many years later. In other words, family language policies could have a linguistic "butterfly effect" (Lorenz, 1963). Just as the butterfly flapping its wings in China may cause a storm in Laredo, relatively more or less use of particular language in a family home will lead to significant differences in future language use and cultural orientation.

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Appendix

Items used to determine cultural orientation

1. I speak Spanish; 2. I speak English; 3. I enjoy speaking Spanish; 4. I associate with Anglos; 5. I associate with Latinos and/or Latino Americans; 6. I enjoy listening to Spanish language music; 7. I enjoy listening to English language music; 8. I enjoy Spanish language TV; 9. I enjoy English language TV; 10. I enjoy English language movies; 11. I enjoy Spanish language movies; 12. I enjoy reading books in Spanish; 13. I enjoy reading books in English; 14. I write letters in Spanish; 15. I write letters in English ; 16. My thinking is done in the English language; 17. My thinking is done in the Spanish language; 18. My contact with Mexico/Puerto Rico, or another Latin American country has been...; 19. My contact with the USA has been..; 20. My father identifies or identified himself as "Latino"; 21. My mother identifies or identified herself as "Latina"; 22. My friends while I was growing up were of Latino origin; 23. My friends while I was growing up were of Anglo origin; 24. My family cooks Latino foods; 25. My friends now are of Anglo origin; 26. My friends now are of Latino origin; 27. I like to identify myself as an Anglo American; 28. I like to identify myself as Latino American; 29. I like to identify myself as Latino; 30. I like to identify myself as American. Possible answers included: (5) Almost Always/Extremely Often; (4) Much/Very Often; (3) Moderately; (2) Very Little/Not very Much; (1) Not at all.