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# Language affinity of heritage speakers in Western Canada: The link between language and emotions

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UNIVERSITY OF CALGARY

Language affinity of heritage speakers in Western Canada: The link between  
language and emotions

by

Nicole Puccinelli

A THESIS

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## Abstract

Heritage speakers (a type of bilingual who, typically learnt the heritage language at home and the dominant language outside the home) often feel different levels of connection (i.e., language affinity) to their heritage language. It has been theorized that bilinguals have two cognitive systems, one for each language and these systems stay in place throughout the lifetime of the speaker, no matter the trajectory of the languages (Dewaele, 2015). Research on heritage speakers in Canada has been limited to language use at home and in the community, as noted by Guardado (2018), leaving out research on heritage speakers and emotions. To address the paucity of research, the study described in this thesis investigates the language affinity of 25 adult heritage speakers of Spanish who are to varying degrees bilingual in Spanish and English and who reside in the Canadian province of Alberta. The participants completed an online bilingual language profile survey (BLP), an interview with the researcher to elicit immigration narratives and a word description task eliciting memories related to Spanish/English word pairs (e.g., house/casa). The quantitative analysis revealed that majority of the participants exhibited higher levels of emotions and in reaction to Spanish words compared to English words and different memories associated with each word in the word pair (i.e., one memory for 'house' and a different memory for 'casa'). The qualitative analysis delves into the factors that influenced these findings, which included language dominance, age of arrival to Canada and feeling culturally connected to the heritage language. This research has implications for the field of heritage language studies by showing the various factors that affect language affinity to the heritage and dominant language.

*Key words:* Heritage speakers, emotions, language affinity, mental representation, language dominance, bilingualism

## Preface

This thesis is original, unpublished, independent work by the author, N. Puccinelli. The study reported in Chapters 3-4 was covered by Ethics ID number REB20-0765 by the University of Calgary Conjoint Faculties Research Ethics Board (CFREB) for the project “Language affinity of heritage speakers in Western Canada: The link between language and emotions” on November 3<sup>rd</sup>, 2020. This research was aided in part by funding provided through a 2019 Faculty of Graduate Studies Master’s Research Scholarship, a 2019 Social Science and Humanities Research Council of Canada Grant for the Master’s Competition (University of Calgary), a 2020 Alberta Graduate Excellence Scholarship, and a 2020 University of Calgary Graduate Studies Scholarship.

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## **Dedication**

Firstly, I would like to dedicate this thesis with great love to my father, without his extensive support this would not have been possible. Secondly, I would like to dedicate this to my incredible mentors J. C. and E.S, who were so kind to share their great wisdom with me and have given me the courage and strength to complete this thesis. Thirdly, I dedicate this thesis to Consuelo and Miguel, for always believing in me, for teaching me to be committed to everything I do and for giving me their unconditional support and care. Fourthly, I dedicate this to my grandparents Angel and Humberto for inspiring me to follow my dreams with great passion and humility. Lastly, I dedicate this to Myles for being there for me and for helping me be resilient throughout this challenging and long research journey.

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**List of Symbols, Abbreviations and Nomenclature**

Symbol	Definition
L1	First language
L2	Second Language
p-value	Probability Value
BLP	Bilingual Language Profile

## **Appendices**

APPENDIX A: Consent Form

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## Epigraph

*“Feelings or emotions are the universal language and are to be honored. They are the authentic expression of who you are at your deepest place.”*

Judith Wright

## Chapter 1 Introduction

This introductory chapter highlights topics pertaining to the current study. It starts with an explanation of the connection between language and emotions and how this relates to heritage speakers of Spanish. The chapter continues with a description of the focus of the study and its significance, followed by the rationale of the study, scope of the study and research questions. Then definitions of important terms are presented. This introductory chapter ends with a description of the structure and organization of the thesis.

### 1.1 Languages, emotions and heritage speakers

Speech often includes language that is employed to express emotions. Such language is an “ingredient” in perceiving and experiencing an emotion (Lindquist et al., 2016). Emotions are expressed through language-specific structures and are relevant to every aspect of language (i.e., phonology, lexicon, discourse, etc.) (Majid, 2012). Previous research has shown that speakers of multiple languages experience emotions differently in their languages (e.g., Altarriba and Basnight-Brown, 2011; Dewaele, 2015; Ayçiçeği-Dinn and Caldwell-Harris, 2009). Pavlenko (2008) found that different languages can result in varying levels of emotions for a multilingual speaker. For example, one of her bilingual participants stated that Welsh was more natural for expressing her feelings than English, which felt non-emotional. She would use Welsh over English to talk to babies and animals (Pavlenko, 2008). Other bilingual participants preferred Russian for expressing their love instead of English, where the phrase “I love you” is overused and can lose its significance.

The current study investigates the connection between languages and levels of emotions felt towards words in each language. The connection a speaker feels to their language(s) is known as language affinity. In this study, heritage speakers of Spanish in Canada possess varying degrees of language affinity to their heritage language. They may experience different levels of emotion in response



to hearing a word in their heritage language based on their previous experiences and background with the heritage language. This can include but are not limited to their age of arrival to Canada, their age of English acquisition, exposure to their heritage language, years of schooling in their heritage language and frequency of use of their heritage language. Heritage speakers often experience frustration when speaking the heritage language when compared to more fluent speakers of that language (Benmamoun et al., 2010 and Lynch, 2018). Knowing how heritage speakers connect to their heritage language can help lessen this frustration. Parents and teachers can benefit from understanding why heritage speakers differ from other speakers and how connected they feel to the language, in other words knowing their language affinity toward the heritage language.

Spanish emerged in Canada due to the influx of immigrants from Spain in 1939 and later in the 1960s and 1970s, and subsequently with immigrants from Latin America (Chile and Argentina in the 1970s and El Salvador in 1983) (Guardado, 2018). Spanish was reported to be the mother tongue of 495,090 Canadians (Statistics Canada, 2016, 2017). In 2016 in Calgary, Spanish was considered the fifth non-official language most spoken at home after Tagalog, Punjabi, Cantonese and Mandarin (Statistics Canada, 2016). In 2016, 28,685 people reported speaking Spanish at home, representing 2.1% of Calgary's population (Statistics Canada, 2016). For comparison, the first most non-official language most spoken at home, Tagalog, represents 3% of Calgary's population with 40,960 speakers (Statistics Canada, 2016). Spanish is not only spoken at home, but a popular language to study in school too. Appelt (2017) noted that many parents in Calgary decided to enroll their children in the K-12 Spanish bilingual programs as opposed to a program in English or French. These programs that continue to exist today consist of both heritage and non-heritage speakers of Spanish.

Despite the growing number of Spanish speakers and learners in Calgary, research on Spanish in Canada is limited and becomes even more limited when studying heritage speakers (an individual who is

to varying degrees bilingual in the heritage language and the dominant language of society). Guardado (2018) conducted a review of studies related to Spanish in Canada and found three related to heritage speakers of Spanish. All occurred in educational contexts. The first described the advantages of having heritage speakers mixed in with non-heritage speakers in the same university-level Spanish class (Campanaro, 2013). The second defined the use of literacy activities in Spanish university classes that contained heritage speakers (Loureiro-Rodríguez, 2013). The third was related to the challenges presented when heritage speakers take Spanish classes at the high school level (Abdi, 2009, 2011). Guardado (2018) also discussed studies related to heritage speakers in non-educational settings in Canada and noted that these studies are limited to how language is used at home and in the community.

This research previously conducted on heritage speakers leaves out studies on how language is connected to the levels of emotion attached to memories related to the heritage language. As Pérez-Luzardo Díaz and Schmidt (2016) state, it is deemed important to understand the connection bilinguals have between language and emotions. This thesis delves into the question of the language affinity (an emotional connection to a language) of heritage speakers, a previously unstudied area in Western Canada. Understanding how heritage speakers' levels of emotions are connected to their memories in their heritage language will shed light on how connected they feel to their heritage language.

Numerous clinical observations and bilinguals' reports support the perception that emotions are experienced differently in two languages (Horenstein, 2010). That is to say, emotions are portrayed as highly variable “one may turn red with anger, glower and shout in on situation and appear white-faced, expressionless and icily polite in another” (Harkins and Wierzbicka, 2001). By understanding how verbal expressions of memories and emotions are linked to social and cultural factors, we can understand more about the language affinity of heritage speakers.

## **1.2 Focus of the study and significance**

The goal of the thesis is to determine how language affinity is connected to language dominance and other factors. To do this, I conducted a small-scale mixed-methods study with 25 heritage speakers of Spanish in Alberta who were born in Canada or came to Canada between the ages of 3-12 or older. In this study, participants were asked to verbally report their memories in response to neutral Spanish and English words such as ‘tree’ or ‘casa’ (house). They also completed an online survey to determine their language dominance as well as their language histories, preferences, and attitudes, since all could play a role in how connected they feel to their heritage language. Finally, participants participated in an interview with the researcher to determine their immigration narratives to link their narratives to their memories. This thesis is primarily based on the work of Pérez-Luzardo Díaz and Schmidt (2016). It extends this work by examining the language affinity of heritage speakers of Spanish in Canada as opposed to late-bilingual speaking immigrants (speakers who learned their second language as adults) in Spain. To conduct this study, I used a mixed-methods approach of both quantitative and qualitative analyses.

### **1.2.1 Rationale for the study**

As indicated above, Calgary contains many Spanish speakers, many of whom are heritage speakers. Being a heritage speaker myself, I have noticed that many other heritage speakers feel different levels of emotion towards their heritage language. For some, it is a sense of pride, and for others, it is a sense of frustration due in part to perceived linguistic insecurity. In terms of the culture(s) associated with their heritage, some deemed this culture to be of utmost importance and linked to their heritage language. In contrast, others felt less of a connection to their heritage language and culture(s). These connections and lack thereof to the heritage culture seem to influence the identity of the heritage speakers. When this study is completed, it will enable me to determine language dominance in terms of

which language is more dominant, heritage (Spanish), or English. Still, I can also determine how each language is connected to levels of emotion towards both the heritage and dominant language.

### **1.2.2 Scope of the study**

The study of the emotional experience of bilinguals has taken place in the fields of psychology, bilingualism, and linguistics (Horenstein, 2010). The scope of this thesis lies inside the field of applied linguistics. By evoking situations and memories from heritage speakers of Spanish, I described their language affinity to their heritage language. Ultimately this could also improve heritage language learning. Participants may feel a particularly strong language affinity to their heritage language despite potentially low language dominance in the heritage language.

### **1.2.3 Research questions**

After noticing the gaps in linguistic studies on bilinguals and emotions, in particular the lack of studies on heritage speakers of Spanish in Canada and their language affinity, the current thesis will address the following research questions:

1. How strong is the language affinity of heritage speakers of Spanish in Alberta in their respective languages (English and Spanish)? What are the factors that affect this affinity?
2. Do heritage speakers of Spanish have different mental image representations in their respective languages for the same signifier? What factors account for these different representations?

### **1.3 Definition of important terms**

What follows are working definitions for common concepts and terms that will be used throughout this thesis. Many of these terms have multiple definitions in the literature; therefore, it is essential to define them and how they are used in this study.

**Heritage speaker:** This is an individual who is to varying degrees bilingual in both the dominant language of society (in this case, English) and an additional language (in this case, Spanish), often spoken at home (Valdés, 2005).

**Culture:** These are shared patterns of behaviours and interactions, cognitive constructs, and understanding learned by socialization. Thus, it can be seen as the growth of a group identity fostered by social patterns unique to the group (e.g., language, religion, cuisine, social habits, music and arts) (Center for Advanced Research on Language Acquisition, n.d.).

**Bilinguals:** These is an individual who uses two or more languages (or dialects) in their everyday lives (Grosjean, 2010 p.22). For the purposes of this thesis, a bilingual is a speaker who is to varying degrees proficient in at least two languages. As Grosjean (2010) explains, a bilingual may possess different abilities and levels in the four language skills (reading, writing, speaking, listening) in both languages. This term includes heritage speakers, who are to varying degrees bilingual.

**Foreign language:** This is a language studied outside of the country of origin of an individual. For example, an English foreign language learner studies English as a foreign language in Peru (Wang and Winstead, 2016).

**Second language:** This is a language often referred to as L2 (second language) or target language, as opposed to L1 (first language). The term second language in this context can refer to any language (also a third or fourth language) learned in addition to the L1 (Rieder-Bünemann, 2012). Typically, the term second language acquisition is used if another language was acquired first (Rieder-Bünemann, 2012). Therefore, a heritage speaker can be a second language learner; however, they can also acquire two L1s simultaneously. To continue with the example from the previous term, an English second language learner studies English as a second language in the U.K.

**Emotion words:** These are words that have an affective meaning, possessing both arousal and valence characteristics. From this category, two subsections were established. One was labelled emotion-label words and the other emotion-laden words (Altarriba and Bauer, 2004, Zhang et al., 2017). Next, I define both terms.

**Emotion-label words:** These are words that directly demonstrate a particular affective state (e.g., happy, angry, panic, worry, horror) (Pavlenko, 2008; Altarriba and Basnight-Brown, 2011, Zhang et al., 2019).

**Emotion-laden words:** These are words that provoke people's emotions without explicitly elucidating the affective states (e.g., death, wedding, cancer, bomb) (Pavlenko, 2008; Altarriba and Basnight-Brown, 2011, Zhang et al., 2019). For example, the word 'wedding' (emotion-laden word) could evoke happy or sad emotions (emotion-label words).

**Emotion neutral words:** These are words that can change the meaning depending on the speaker's experiences. For example, a 'dog' is defined as a type of mammal. For one speaker, 'dog' may evoke positive emotions because they grew up with a dog, and for another speaker, the same word may evoke negative emotions because a dog could have attacked them. How the neutral words are interpreted depends on the situation in which the word is used and the personal experiences of each speaker (Dubois, 1992). These emotion-neutral words differ from emotion-laden words, such as 'death' which typically evokes negative emotions and is not considered neutral. Researchers Zhang et al. (2019) cite a list of such words, and some examples include factory, stone, cupboard, and backdoor.

**Language affinity:** Affinity is a natural feeling of closeness and understanding of something. Language affinity is an emotional connection to a language. For example, if a speaker has a strong positive connection to Spanish, they typically will exhibit a high level of affinity for Spanish (Pérez Porto and Gardey, 2015).

**Linguistic insecurity:** This is defined as the “[s]peakers’ feeling that the variety they use is somehow inferior, ugly or bad” (Meyerhoff, 2019, p. 192).

**Language dominance:** Language dominance, as used in this thesis, takes into account language use, language preferences, language proficiency and language attitude in two or more languages and whichever is higher overall is considered to be the dominant language (Birdsong et al., 2012). In this thesis, these language uses, language preferences, proficiency levels and language attitudes were self-rated by the participants for both English and Spanish. Language dominance, therefore, “takes into account the two languages of a bilingual person, not just one, biographical variables and the language-external conditions under which the two languages are learned or used by bilinguals” (Montrul, 2015a, p. 16-17). Also, language dominance is not static but dynamic and, therefore, can change depending on the circumstances and preferences of the bilingual speaker (Birdsong et al., 2012).

#### **1.4 Structure of the thesis**

This thesis consists of six chapters. The current chapter introduces the topic of emotions in heritage speakers and the situation of heritage speakers in Canada followed by definitions of the key concepts that are used repeatedly in this thesis. The following five chapters include the literature review, the methodology, the findings, discussion, and the conclusions. The literature review presents previous studies on emotions in bilinguals and on heritage speakers in Canada and it states the theoretical framework. The methodology chapter describes the participants and the tasks and ends with the data analysis procedures. The findings chapter presents the results and findings of this study. The discussion chapter deliberates and interprets the results and findings. The final chapter offers the conclusions, future studies, limitations of the current study and implications for heritage speakers, parents and teachers of heritage speakers.

## Chapter 2 Literature Review

### 2.1 Introduction

This inquiry is located at the intersection of language, culture and emotions. These are inextricably intertwined, together comprising the essence of who we are and what it means to be human. These underpin our sense of self – our identity. The literature in each of the domains of language, culture and emotions is reviewed. Prior to this, heritage speakers of Spanish are described in more detail. While the definition in Chapter 1 stated that heritage learners are to various degrees bilingual in two languages (home language and dominant language), they are not monolithic. Therefore, it is necessary to describe them in more detail to understand the factors that influence their heritage language use and identity.

In this study, heritage speakers represent a range of Spanish speakers, generally characterized by having learned Spanish as their L1 at home and subsequently learning English upon arrival at school. Spanish is predominantly an oral language for daily living and communicative exchanges within the family and close community. English is learned at school and reinforced with friendships outside the home. Some heritage speakers have taken Spanish or French courses throughout their lifetime, so in these cases, it is not solely a language learned at home but rather reinforced in school. Heritage learners in this study and in general differ in their use and proficiency levels (Spanish and English). Some have knowledge of additional languages as well, usually due to learning them at school.

In other words, not all heritage speakers have the same levels of speaking, listening, reading and writing due to age of arrival, socioeconomic background, schooling, parental support and life experiences (Potowski et al., 2018). However, many factors can affect the literacy level and proficiency level in the heritage language. These factors include but are not limited to age of arrival to the new country, exposure to the dominant language, language preferences and use, and attitudes towards each language (Montrul, 2015a; Montrul, 2015b).



Family attitudes toward the heritage language and culture may impact how successful a heritage speaker will be at maintaining or relearning the heritage language (Oh and Au, 2005). Guardado (2018) used participant observation and action research to examine the home language practices and experiences of Spanish-speaking parents in Western Canada, focusing on their interactions with school staff and reactions to widespread assimilative forces. In this research, families viewed Spanish maintenance as a way to foster family unity, as Latino identity and as a path for future professional advancement. The families reported that the Spanish language was devalued in society and school, especially because teachers instructed parents only to use English with their children. Guardado (2018) also mentioned that school officials were to blame that whenever they thought their kids had a performance deficiency, it was because of the use of Spanish at home.

## **2.2 Language and bilingualism**

Montrul (2015b) explains four types of bilinguals: 1) early bilingualism is when both languages are acquired before puberty; 2) late bilingualism is when the development of one language, the L2, occurs typically after puberty as a late adolescent or adult; 3) simultaneous bilingualism refers to those who gain acquisition of both languages starting at birth and 4) early sequential bilingual in a child is typically considered after at least the age of 3 to 6 where they have learned the L2 after the basic foundations of the L1 were in place. Moreover, heritage speakers, who are also a type of bilingual, fit within these four types of bilinguals. Heritage speakers who are early bilinguals arrived in Canada between the ages of 7 and 11. Heritage speakers who arrived at age 12 or later are late bilinguals. Heritage speakers who are simultaneous bilinguals are those born in Canada. In contrast, heritage speakers who are early sequential bilinguals are those born in the country of their heritage who came to Canada between the ages of 3 and 6.

Being an early sequential or late bilingual can cause unbalanced or uneven bilingualism (i.e., one language is not as developed as the other) of heritage language speakers, leading to negative attitudes toward the heritage language (Montrul, 2015b). This, often referred to as linguistic insecurity, can make heritage speakers feel somewhat negative/ashamed of their English or Spanish and affect how they identify and see themselves as fully realized, contributing members of an inclusive, civil society (Sanchez- Muñoz, 2015). Furthermore, Valdés (2005) said that losing fluency in the home language often leads to linguistic insecurity and self-consciousness, both of which can interfere with the language development process. Sanchez-Muñoz (2015) also explained that heritage speakers of Spanish in the USA often enter the classroom with low linguistic self-esteem. Even if they are literate in their heritage language, possessing linguistic insecurity can result in heritage speakers assessing their own skills as lower than they actually are. Despite this, most heritage speakers recognize that their heritage language is considered a fundamental component of their cultural and ethnic identity (Amezcuca, 2014).

### **2.2.1 Identity**

Sánchez-Muñoz (2015) stated that “language is the vehicle through which much of our cultural identity is constructed” (p. 208). The identities of heritage speakers are fluid and “shaped and constrained by the macro- and micro-level sociohistorical contexts, including societal ideologies, power relations, and institutional policies” (Leeman, 2015, p. 120). Heritage speakers often link their identity to the connection they have to their heritage language and cultures. (Sánchez-Muñoz, 2015). For example, Beaudrie et al. (2009) found that the majority of the 152 students enrolled in a university Spanish course designed for heritage speakers connected their ethnic identity to their heritage language when surveyed. However, at least one student did not.

To exemplify this more, three studies in the USA investigated how heritage speakers of Spanish identify and demonstrated the connection between identity and culture. All of the studies involved

Latino university students as participants. In the first study, five advanced heritage speakers living in the US were interviewed and reported a sense of pride for their Hispanic heritage and self-identified as Hispanic, Latino/a and Latin American (Alarcon, 2010). For example, one of her participants stated that knowing the language means “to truly understand your heritage,” and for another, it meant “everything, it is how I communicate with my family, the most important people in my life” (p. 276). Additionally, most of the participants associated Spanish with prestige. One participant connected Spanish to “cultural diversity and uniqueness” (Alarcon 2010, p. 276). Another viewed the language as part of his heritage and expressed his feeling that “it is an obligation to my culture to understand the language” (Alarcon 2010, p. 276). In the second study, according to Oh and Au (2005), these types of characteristics show that identification with Hispanic culture and participation in Hispanic cultural activities have been found to be more motivated to mastering the Spanish accent for 55 participants from California. As part of this study, one of the tasks the participants completed was the cultural identification task called Multigroup Ethic Identity Measure.

For this measure, participants were asked to rate their agreement on statements about their ethnic identification, using a four-point Likert scale ranging from one (strongly disagree) to four (strongly agree). The researchers found that participants ranged from relative lack of identification with Latino culture to strongly identifying with Latino culture. On average, participants seemed to identify moderately with Latino culture and often reported having a better accent in Spanish. Overall, participants who took part in Latino cultural activities and who felt positive about spending time with Latinos stated that they would like to speak like a native speaker to ‘fit in’ easily with their cultural group. In the third study, Tseng (2021) interviewed 22 first- and second-generation Latinos in the USA (Washington DC). She specifically asked, “[i]s language an important part of Latino identity?” (p. 116). She found that both generations of immigrants related speaking Spanish to their cultural identity. One

even claimed that not speaking the language meant a lack of credentials to identify with the heritage culture. Overall, the participants felt that not speaking the language meant a rejection of Latino identity. The researcher separated responses related to proficiency in Spanish and noted the connection between proficiency in Spanish and feeling a sense of belonging to the Latino community, with some disconnect between the actual abilities of second-generation immigrants (informal registers and conversational Spanish) and how they are perceived (as not speaking Spanish well). Lynch (2012) noted that heritage speakers' use of informal registers and nonstandard regional varieties could be mislabeled as lack of proficiency.

In the Canadian context, Guardado (2018) emphasized that previous research has shown the importance of cultural identity for developing and maintaining the heritage language. Guardado (2018) conducted 65 interviews with 34 Hispanic families in Canada. He found ten major themes related to the development and maintenance of Spanish as a heritage language, with one being identity. The main finding related to identity was that the Spanish language was considered a crucial part of the family's identities. The families thought that speaking Spanish at home and passing it on to their children would increase their children's self-esteem and cultivate a Hispanic cultural identity, which they found to be key to maintaining the heritage language. It is important to note that the heritage speakers in Guardado's (2018) study lived with their families, which is not typically the case with the participants in the current study.

### **2.2.2 Language Dominance**

Grosjean (1998) states that language dominance derives from bilinguals having two languages in their mind. Furthermore, he adds that it involves the relationship between competencies in two languages and notes that it can vary. Language dominance covers many dimensions of language use and experience (Gertken et al., 2014). These dimensions include proficiency, fluency, ease of processing,

‘thinking in a language,’ cultural identification, and frequency of language use. Therefore, a bilingual speaker can either be more or less dominant in a specific language (Gertken et al., 2014).

Proficiency in a language is only one aspect of language dominance and is often assessed through scores provided based on proficiency tests that assess the four language skills, which are writing, reading, speaking and listening (Dabrowska, 2012). It is important to clarify those two equally balanced bilinguals may differ in the proficiency levels of their languages; one can possess high proficiency in both languages, and the other lower proficiency in both languages (Treffers-Daller, 2011). These same two bilinguals could possess different or similar levels of language dominance in one of their languages, regardless of their proficiency level in that language.

Moreover, Hamers and Blac (2000) clarified that, by definition, a balanced bilingual does not necessarily correspond to a high level of proficiency in each language but instead focuses on an equal level of proficiency in both languages. Therefore, language dominance can shift within a bilingual’s lifespan, leaving aside their proficiency level in their respective languages. For those immigrants living immersed in their L2 for an extended period, their L2 could become their most dominant language, even if they have less proficiency in that particular language (Harris et al., 2006).

Furthermore, Gertken et al. (2014) stated that although bilingualism is a primary focus of research in academia, educational and clinical fields, there have not been clear guidelines designed to measure the language dominance of bilinguals. To study the connections between languages and emotions in bilinguals, several methods have been used, including language choice surveys, interviews, proficiency tests and psycholinguistic tasks (Altarriba and Basnight-Brown, 2011; Dewaele, 2015; Ayçiçeği -Dinn and Caldwell-Harris, 2009; Ivaz et al., 2016; Matsumoto et al., 2008; Resnik, 2018; Vélez-Uribe and Rosselli, 2019). None of these studies used a survey to measure the various components that comprise language dominance. Therefore, in this thesis, I use the Bilingual Language

Profile (BLP) survey created by Gertken et al. (2014) to measure the language dominance of the participants in the study. It will be described in more detail in Chapter 3.

### 2.2.3 Culture

Language and culture lie on the flip side of the same coin. They are mirrored one by the other. As Pérez-Luzardo Díaz and Schmidt (2016) explain when someone becomes part of a linguistic community, the cultural legacy associated with that community is transmitted to the person and to an extent, it determines who the person is, how the person should act, how the person perceives themselves and how others perceive the person. Furthermore, each culture uses language to satisfy their needs. In other words, language was created and evolves according to the experience lived by the community of the speakers. Therefore, language reflects the history and customs of a culture (Witte, 2008). Culture is the everyday way of being and knowing and provides the context for language development (and the closely associated emotional affinity) both by way visible products (such as dress, eating and cooking habits) and invisible processes (such as ideas about relationships, family life and marriage). Culture, then, structures, guides, and constrains behaviour, including language and emotional expression.

Individuals can also be bicultural and shift between two or more cultures. For some, the two or more cultural identities are complementary, and for others, they are contradictory. For example, Benet-Martínez et al. (2002) refer to this individual variation toward cultural integration as bicultural identity integration (BII). They found that Chinese-Americans with high BIIs (i.e., the two cultures are perceived as complementary) behaved in culturally American ways when primed with American (Western) cultural cues and likewise behaved in culturally East Asian ways when primed with East Asian cues (Benet-Martínez et al., 2002). These individuals sometimes felt they were a part of a third culture that differed from the two but was considered their own. For individuals with low BIIs (i.e., the two cultures exist in opposition), Western primes cued East Asian behaviours and East Asian primes cued Western

behaviours. For Latinos in the USA, those with more connections to Latino friends led to an identity more linked to being more Latino and less American from a cultural identity standpoint, suggesting that there is a tension between identifying as both Latino and American (Repke and Benet-Martínez, 2017). To complicate matters further, bicultural individuals can be denied membership in the cultural groups to which they identify (Albuja et al., 2019). This denial has resulted in negative health outcomes (i.e., increased levels of stress and anxiety) and also the need to reassert verbally one or more of their cultural identities (Albuja et al. 2019).

The Latino or Hispanic community in Calgary (and Canada) originates from a variety of countries primarily in Latin America (México, El Salvador, Perú, Venezuela, Colombia, Argentina) and Spain and this community of Spanish-speakers that immigrated to Canada brought with them various features from their original cultures. The features that unite a culture include but are not limited to language, religion, cuisine, family, media and entertainment (Smith, 1996). Armony (2014) described Latin Americans as “a diverse group not only in terms of nationalities but also class, ethnicity/race, culture, political affiliation, religion and demographic characteristics.” Ruiz (2013) stated that Latin Americans often focus on community activities (i.e., dances and sporting events) and family gatherings, which serve to maintain group ties and keep cultural heritages alive. Another factor that unites Latin Americans is religion, and most of them identify as either Catholic or Protestant (Ruiz, 2013).

Guardado (2002, 2006) conducted a series of exploratory interviews with four Hispanic families in Western Canada. This research focused on parental perspectives to better understand the causes of Spanish language loss among Spanish heritage children. The results indicated that heritage cultural identity was crucial to heritage learners in the context of dominant L2 in that stronger identification with the heritage culture was linked to more dominance in the heritage language. He used a natural tone to persuade children to speak their heritage language by using positive and encouraging conversation

versus using authoritarian conversation. He concludes that parents who are committed to heritage language development should use and promote positive attitudes towards the heritage language in their children.

Navigating emotions and language affinity can offer a rich opportunity for research inquiry, especially in the Latino community that is a growing portion of the evolving demographic landscape in Canada. According to Pérez-Luzardo Díaz and Schmidt (2016), emotions are, to an extent, shaped by the culture and language of their community. Therefore, each culture offers a list of emotions that suggest to people how they should feel, how to express feeling and how to think of themselves and others (Wierzbicka, 1997 as cited by Pérez-Luzardo Díaz and Schmidt, 2016). The words used to describe emotions are representative of the history of a community, the linguistic values of the community and the culture(s) represented by and in the community (Pérez-Luzardo Díaz and Schmidt, 2016). Emotions vary considerably from one language and culture to another (Wierzbicka, 1997).

### **2.3 Emotions/emotional affinity in bilingual speakers**

Emotional concepts are distinct across languages (Pavlenko, 2008). Furthermore, bilinguals' way of processing language related to memories and emotions may be different from monolinguals (Pavlenko, 2008). The purpose of research on emotions in bilinguals is to understand the effects and phenomena of the difference that exist between language and emotionality that is unique and noticeable to bilingual speakers.

Words in different languages can display varying levels of emotionality (Pavlenko, 2008). As mentioned in the definitions section of Chapter 1, there are different types of emotion words. For example, emotion-label words describe feeling such as 'happy' or 'sad,' whereas emotion-laden words are words that do not refer to emotions directly but instead express ("jerk," "loser") or elicit emotions from the interlocutors ("cancer," "malignancy"). It is important to separate emotion words from



emotion-laden words because they are considered a separate class of words in the mental dictionary. In the current thesis, I am investigating responses to emotion-neutral words. These are words (e.g., dog, house) that, when heard, can be interpreted differently by the hearer depending on the situation in which the hearer remembered the word, and this could be positive, negative or somewhere in between. Understanding how bilinguals react to emotion words in both languages can help us to understand the emotional differences attached to each language (Vélez-Urbe and Rosselli, 2019).

Several studies relevant to the current thesis include research on language and emotions in bilinguals. In the studies reviewed here, the participants were all late bilinguals who learned an L2 through university language courses or as older adults. The tasks in each study differ, but all were designed to elicit language related to emotions. These studies shed light on how bilinguals experience emotions in their languages.

Altarriba and Basnight-Brown (2011) studied monolingual and bilingual Spanish and English-speakers from the University of Alabama and New York divided into four groups: 57 monolingual English participants tested with emotion-laden words, 52 monolingual English speakers tested on emotion-label words, 32 Spanish and English bilinguals tested on emotion-laden words, and 34 Spanish and English bilinguals tested with emotion-label words. The test consisted of a Simon task, which is a behavioural task that in this study measured reaction times to ten emotion-label words (e.g., happy, anxious) and ten emotional-laden words (e.g., dream; shark). Monolingual participants viewed all 20 words in English and bilinguals viewed 20 words in and English and their equivalents in Spanish, in random order. For all participants, reaction times to negative emotion-label words differed significantly from negative emotion-laden words. In other words, the reaction time between the emotion words was statistically significant. For the bilingual participants, the L2 reaction times to positive emotion-label words were similar to emotion-laden words. This shows both similarities and differences in terms of

reactions to emotion words in bilinguals and monolinguals, depending on the type of word (emotion-label vs. emotion-laden) and the word's valence (positive or negative).

Dewaele (2015) offers evidence on the preferences of language used by multilinguals in their emotional inner speech; the participants were collected through the snowballing technique to find students, teachers, friends and colleagues. For this study, 1579 adult multilinguals were recruited; most of them spoke up to five languages, such as English, Spanish, French, Italian, and German and Dutch. The data from the participants were gathered from the Bilingualism and Emotion Questionnaire (Dewaele and Pavlenko 2001–2003). The web questionnaire contained 35 open and close-ended questions about emotional and non-emotional language use in different situations. The quantitative analysis showed that a foreign language (a language studied outside the country of origin) learned later in life (e.g., Spanish, Italian) were used less frequently for emotional inner speech than for inner speech. According to Dewaele (2015), it takes time for a foreign language to become adopted or internalized to the point of becoming a multilingual's "language of the heart." A change can occur when the L1 is not used as much, meaning the emotionality of the L1 fades, causing the foreign language to take the status of "language of the heart." Dewaele (2015) stated that a possible shift towards increased use of the foreign language in inner speech and emotional inner speech is evidence of a conceptual restructuring, in other words, a possible reorganization of the language use. This reorganization can cause the foreign language to share or officially take over the role of inner emotional speech in multilinguals.

Ayçiçeği-Dinn and Caldwell-Harris (2009) researched the emotion-memory effects (i.e., the memory connected to the emotion) in bilingual speakers to examine whether these effects were stronger in the L1 (Turkish) or the L2 (English). The 59 bilingual participants recruited from the University of Istanbul were Turkish completed four tasks. The first was to rate words in the L1 and the L2 for their emotional intensity. The second was a shallow processing task in which they were asked to identify how

many letters contain a closed circle in both languages. For example, in the set ‘p, q, o, a, b, d, g,’ seven letters contain a closed circle. The third was a translation task. For this task, if the word appeared in Turkish, the participants were asked to translate it and report it to the experimenter in English. If the word appeared in English, the participants were asked to translate it and report it to the researcher in Turkish. For the final task, participants were asked to provide as many word associations as possible in 10 seconds based on five categories of words (taboo, reprimands, positive, negative, and neutral). Upon analyzing the results, Ayçiçeği-Dinn and Caldwell-Harris (2009) found that bilingual speakers generated stronger emotions in their L1 with taboo terms and emotional phrases. If reprimands were set aside, the overall emotion-memory results would have been similar in their two languages, with taboo words showing the highest number, followed by positive and negative words. Overall, they concluded that, emotions are present in the memory of bilinguals in their respective languages.

According to Ivaz et al. (2016), self-related stimuli improve memory, speed, and accuracy performance because these are processed faster and more accurately than the self-bias effect (i.e., people’s tendency to attribute positive or negative reactions towards a specific situation). The participants were placed into three groups: 39 non-balanced bilinguals with relatively advanced English, 26 L1 English speakers, and 48 L1 Spanish participants with fairly advanced English. They were then asked to view a label and determine if it matched them, someone else or did not match. For example, if “friend” appeared with a circle, the participant had to decide if it was related to them, someone else, or nobody. This was done with various shapes (circle, triangle and square) and various words (in English: you, friend, other; in Spanish: tú (you), amigo/a (friend), otro/a (other)). The results showed that although participants chose L2 words more than L1 words, demonstrating that the L2 caused more reactions to emotions than the L1, this difference was small. The researchers proposed that future studies

should be conducted with bilinguals using different words to determine if the differences found between the two languages are still minor and what causes these slight differences.

Matsumoto et al. (2008) conducted a study to determine if bilinguals judge the emotions of others differently in their L1 versus their L2 and to what extent the individual differences towards the emotions could explain such differences in the languages. For this study, 274 L1 Spanish-speaking students were selected from the advanced English class of the Autonomía University of San Luis in the Department of English intensive summer course. The participants, all born and raised in Mexico, possessed an advanced level of English. The participants completed two tasks. First, they responded to 55 statements on a 7-point scale to determine their ability to adjust to intercultural differences in Spanish and English. This was used to determine their emotion regulation score. For the second facial recognition task, participants were asked to select the emotion displayed in either a Hispanic or Caucasian face and determine the level of emotions displayed on a 9-point scale. The students' Spanish emotion regulation scores completely interfered with the judgment of emotion recognition of others. Matsumoto et al. (2008) found that participants were more precise when they had to judge emotions in English of Caucasian faces but assumed greater strength of personal experiences in Spanish. The results also showed that participants displayed higher emotion regulation scores in Spanish. Matsumoto et al. (2008) determined that effectively, the participants judged emotions differently as a function of language, and the difference was because of their emotion regulation process.

Resnik (2018) identified whether the language used in an individual's inner speech can be influenced by the kind of L1 they use or if a specific variable is influential across different languages. According to Resnik (2018), this paper is a response to a need for investigating language use in an inner speech in a non-Western context. Furthermore, he stated that most recent studies had taken place in a Western context, but there is uncertainty whether these previous findings would apply to non-Western

contexts. For this study, the participants recruited were 167 bi/multilingual speakers with a high English proficiency. Most of the participants were L1 speakers of German, Japanese, Filipino, Chinese or Thai. The participants completed a web survey adapted from the Bilingualism and Emotion Questionnaire created by (Dewaele and Pavlenko 2001–2003). The survey consisted of 30 open and close-ended questions about language use in neutral and emotional contexts with an additional focus on gender. The questions consisted of various sets, focusing on language (learner) history, past and present habits regarding language use in emotional and non-emotional situations and participants' attitudes on these matters. As the participants were proficient users of L2 English and their L1s differed, the language of the survey was English. A subset of 24 participants were interviewed. The interview was conducted in English, which included a general question on language use for inner speech, refined questions on specific inner speech domains (mental calculations and dreaming), questions about the influential factors in using a specific language for inner speech and questions about dynamic changes in language use for inner speech. Resnik's (2018) study revealed significant differences in the frequency of language use for inner speech in participants. L2 users of English reported using the L1 more frequently for inner speech. As a result of this analysis, a number of variables were determined to boost the frequent use of the participant's L2 inner speech. These included high-frequency use of the L2, natural exposure to the L2, high self-reported proficiency in the L2, high bilingualism index, and the overall number of languages known. As per the qualitative analysis, the interviews showed that the L2 can shift language use for the inner speech from the L1 to the L2 when it is frequently used, and the individual has reached a proficient use in the countries where the L2 is spoken (Dewaele 2015).

Vélez-Urbe and Rosselli (2019) stated that bilinguals experience emotions differently depending on which language they are speaking. In order to conduct this study, participants were recruited from the South Florida community. Participants were divided into two groups: 149 Spanish–English bilingual

participants who used Spanish and English daily and 24 participants who were exposed to Spanish since birth and learned English either simultaneously or later in life. The participants were asked to evaluate three categories of words: (positive, negative, and taboo) in both languages to determine if emotionally loaded words were appraised differently in the L1 versus the L2. The results indicated that positive words were more positive in English than in Spanish. Negative words were perceived as more negative in English than Spanish, and taboo words had a greater negative effect in Spanish than in English. These results indicate a difference in the assessment of emotions in the languages spoken by bilinguals. Vélez-Urbe and Rosselli (2019) concluded that the difference depends on the emotion category of words and that it is influenced by language proficiency.

Two recent studies are most similar to the one conducted for this thesis. Both examine how bilingual's express emotions and connect to their languages. While Bakic (2017) investigated language preferences for expressing emotions, Pérez-Luzardo Díaz Schmidt (2016) examined levels of emotions in reaction to words in both languages. Both studies will be explained in detail next.

Bakic (2017) aimed to determine the relationship between bilingualism and ways of expressing emotions and thoughts. Her goal was to determine the preferred language for expressing emotions and thoughts. For this study, ten anonymous adult L1 speakers of Croatian, German, English, Hungarian and Italian and L2 speakers of Croatian, German, English and Spanish completed a questionnaire that elicited information about language preferences and emotions. For the first part of the questionnaire, participants responded to questions about language use. For the second part of the questionnaire, participants responded to questions about their language affinity and how they use each language to express their emotions. Specifically, they had to select which language was more emotional, which language was used to express different types of emotions or to retell a stressful event and which language was involved in processes of thinking, counting, converting currency, writing diaries, writing a

shopping list, and writing notes/ list. Bakic (2017) found that bilinguals use different languages to express emotions and that age of acquisition played a large role as to why participants showed different emotions for each language. Since the participants in her study were exposed to their two languages at an early age, they did not have any issues expressing their emotions or dealing with cognitive processes in either of their languages. Moreover, Bakic (2017) determined that other factors such as the context of acquisition (L2 can have emotional value due to the context in which it was learned), personal history of traumatic stress and violence, language dominance and word types influenced the language chosen to express the emotions. Another factor that Bakic (2017) noticed was that participants showed different emotions in their respective language because they belonged to a particular culture or more than one culture at the same time.

I will now discuss the study that most influenced this thesis. Pérez-Luzardo Díaz and Schmidt (2016) conducted a pilot study based on bicultural bilinguals and how their emotions were connected to their language. In their study, they interviewed 12 bilingual women who were between the ages of 24 and 56. The participants identified with both cultures associated with the geographic region in which each language was spoken and use both languages daily. Participants completed an interview with the researcher where they explained their backgrounds, including information about their nationalities and cultural backgrounds. Afterwards, participants were given a series of words that were considered emotional or emotional charged words (i.e., words that could have an emotional charge by referring to specific objects or places and could be related to specific memories). Then participants were asked to explain the mental image of each word in each word pair (one word in one language with its equivalent in the other) and asked to specify the degree of emotion they felt with each word on a scale of 0 to 5, with 0 reflecting no emotionality and 5 reflecting a lot of emotionality. Pérez-Luzardo Díaz and Schmidt (2016) determined that bilinguals displayed different mental images for the same signifier and utilized

different languages depending on the culture of the community and which language they feel more comfortable using.

This current study was based on Pérez-Luzardo Díaz and Schmidt (2016) to determine if bilinguals feel differently in their respective languages. However, some important differences between this study and the current study will now be highlighted. The current study utilizes heritage speakers (an individual who is of varying levels of bilingual, dominant in the language of society and other language spoken at home) as opposed to bilingual speakers (who is an individual who has varying degrees of proficiency in at least two languages). While Pérez-Luzardo Díaz and Schmidt's (2016) 12 female participants were bilinguals of various languages between the ages of 24 and 56, the participants in the current study are 25 mixed-gender heritage speakers of Spanish who also speak English and range in age from 19 to 38. The way the word description task was delivered in each study was different as well. While Pérez-Luzardo Díaz and Schmidt's (2016) participants read and responded to words, the participants in the current study heard the researcher pronounce a word and then responded. The words utilized in this task in each study were different too. A new list of neutral alphabetical words was created for the current study. The current study includes an additional task, a questionnaire that measures language dominance. Pérez-Luzardo Díaz and Schmidt (2016) study concluded that most bilinguals have different mental images for all the words and that they feel differently in each language. As will be shown in Chapter 4, this was largely the case in the current study, with some exceptions.

Overall, the studies reviewed here show that language affinity can affect participants' use of their L1 or L2. The results of the studies point to a difference in the assessment of emotions in the languages spoken by bilinguals. The difference depends on the language proficiency of the bilinguals and the fluctuation in emotions depending on the usage of the L1 and L2. This is what Dewaele (2015) referred to as "the language of the heart," which is the language to which one feels more of an emotional



connection. The previous studies did not focus on heritage speakers, who are a unique bilingual population and who themselves are to varying degrees proficient in each language. By studying the emotional responses and reactions to words in their heritage language and English, this adds to the existing literature on emotions in bilinguals. The theoretical frame that guides this study evolves from this literature review and is explained in the following section of this chapter

## **2.4 Theoretical framework**

As described above, bilingualism, culture, emotions, and identity are connected and overlapped to varying degrees. Speaking the heritage language is typically considered a crucial part of belonging to the heritage culture. Emotions are shaped by the culture(s) and language(s) of the communities in which bilinguals reside (Pérez-Luzardo Díaz and Schmidt, 2016). In other words, cultural expectations often shape how a speaker should feel. According to Dewaele (2010), expression of feelings and emotions are tied to cultural, linguistic, situational and individual variables. For example, if a speaker is put in a particular situation, they will react accordingly depending on these variables and the listeners that surround them.

Aligning with Dewaele (2010), Pérez-Luzardo Díaz and Schmidt (2016) believe that bilinguals have two cognitive-emotional systems, one for each language, because bilinguals feel and act according to the language in place at the time. Pavlenko (2005, 2008) believes that bilinguals' trajectories of acquisition and use of their different languages are unique, resulting in rich and varied mental representations. Therefore, the idea of having two cognitive systems for each language the bilingual possesses should not sound strange because they feel and act according to the language in place (Pavlenko 2008; Pérez-Luzardo Díaz and Schmidt 2016; Dewaele 2010). As Dewaele (2015) has stated, there can be a possible shift towards an increase of either of the languages, which can cause an

emotional shift between each language, causing either language to share or officially take over the role of inner emotional speech in bilinguals.

## 2.5 Chapter summary

Language allows us to communicate our emotions to other people. We can articulate our inner feelings through languages by expressing our current emotional state explicitly with adjectives or nouns like *hate* or implicitly by using figurative language as metaphors (Lüdtke, 2015, p.140). Understanding the bilingual lexicon, where different languages and words show diverse levels of emotion, is crucial to understanding bilingual identity and cultural identification (Pavlenko, 2012).

In this chapter, heritage speakers were defined and classified as various types of bilinguals. This was followed by briefly discussing the language insecurity heritage speakers often face and how their identity is shaped by their heritage culture. Then, several studies that measured how bilinguals express and perceive their emotions in both languages were reviewed. For example, Pérez-Luzardo Díaz and Schmidt's (2016) pilot study found that adult bilingual women in Spain exhibited two cognitive systems, one for each language, resulting in two separate systems for expressing their emotions. After this, the theory behind languages and emotions was discussed. To my knowledge, no previous study has been conducted on heritage speakers of Spanish residing in Canada regarding their language affinity. Understanding heritage speakers' levels of emotions toward their heritage language and other languages will enhance the research in this field.

## Chapter 3 Methodology and Research Design

### 3.1 Introduction

This is a small-scale mixed-method (qualitative and quantitative data) designed to shed light on the broad question of emotional affinity to language among heritage speakers of Spanish in Canada. The data collected included a BLP survey (Birdsong et al., 2012), an interview with the researcher to elicit immigration narratives and a word description task. The BLP is included in the current study to determine the role of language dominance and language affinity. In previous studies examining emotions and bilinguals, the BLP was not used as a tool to measure heritage learners' language dominance, making it difficult to determine the connection between levels of emotions in two languages and language dominance in those same two languages. The interview was conducted to gather more in-depth information about the participants with a purpose to use this data later to describe the results of the word description task. The word description task, adapted from Pérez-Luzardo Díaz and Schmidt (2016), was designed to elicit the connection heritage speakers have towards their two languages when they hear a particular word. This task was best suited for this instead of other cognitive tasks described in Chapter 2, because it showed the emotional connection heritage speakers exhibited toward emotion-neutral words in both Spanish and English.

This chapter is structured as follows: First, I explain how I recruited participants. Then, I describe the participants and their backgrounds. Next, I explain the instruments and data collection. This is followed by the data analysis, positionality of the researcher, limitations, ethical considerations and lastly, chapter summary.

### 3.2 Recruitment

After receiving approval for my study from the Ethics Board, I proceeded to recruit my participants. They were recruited through email, list-serves and social media. Due to a large number of

heritage speakers in Spanish courses at the University of Calgary, I contacted instructors of Fall 2020 intermediate and advanced Spanish courses. I asked them to post information about my study on their course website platforms. The criteria for recruitment were finding participants who were heritage speakers, who came to Canada at a young age (12 or younger). In the recruitment material, a heritage speaker is defined as an “individual raised in a home where a language other than English is spoken and who are to some degree bilingual in English and the heritage language” Valdés (2005). The potential participants then contacted me via email, and I determined if they met the criteria to participate in the study. I then returned their correspondence, asking them to participate if they fulfilled the requirements. In the following section, I will explain in detail each participant’s cultural and language background.

### **3.3 Participants**

To carry out this study, the participants recruited were 25 adult heritage speakers of Spanish who resided in Alberta. They reported an average level of proficiency in both Spanish and English of around 6 out of 10, even though it probably was higher in both languages. This could have been due to several reasons, some of which include their personality type, linguistic insecurity and possibly even teacher-shaming in previous Spanish or English courses.

The participants were from various Hispanic backgrounds, including Mexico, El Salvador, Peru, Venezuela, Colombia, Argentina and Spain. All participants had at least one parent who spoke Spanish and resided in one of the previously listed countries until adulthood. The majority of the participants had two parents from these countries. In terms of the age of arrival to Canada, three participants were born in Canada, eight arrived between ages 3 and 6, eleven between ages 7 and 12, and three arrived after age of 12. The 3 participants who arrived after age 12 had been exposed to English from a young age through courses completed in their schools at their heritage countries.

The majority of the participants ranged between the ages of 19 and 26, with two exceptions. One participant was 33 and another 38. There were 9 participants that identified as men and 16 as women. All participants had completed an undergraduate degree or were currently enrolled in undergraduate university programs. The majority of the participants had taken at least 4 to 5 Spanish courses throughout their lifetime. They had also been exposed to other languages such as Italian and French. For the most part, participants were considered bilingual or multilingual learners. There were at least five participants who reported being bilingual K-12 teachers who use Spanish regularly when teaching.

### **3.4 Instruments and Data Collection**

All tasks were completed individually (one participant at a time with the researcher). Due to the COVID-19 pandemic, the BLP survey was conducted online via Qualtrics, and the interview and word description task were conducted via the Zoom platform. In this section, I introduce each instrument and task used to conduct the study. Then I explain why I used each of the following instruments: language profile survey, interview and word description task. What follows is a detailed explanation of each instrument along with how it related to this study.

#### **3.4.1 Language profile survey**

The BLP written by Birdsong et al. (2012) was put on Qualtrics, an online survey platform hosted by the University of Calgary. The survey was available in both English and Spanish, but all participants completed it in English. The participants were able to complete the survey in about 10 minutes. The participants were sent a link to the survey, and they completed the survey on their own prior to the Zoom session in which they completed the other two tasks. The BLP is a multi-measure survey intended to reflect language dominance and the multiple factors influencing the participants' languages, such as: age of acquisition/exposure to the language, years of schooling, frequency/function of use, linguistic environment, language attitudes, proficiency and processing ability. It consisted of 19

questions with the following four parts: 6 (Likert-scale) questions on language history, 5 (Likert-scale) questions on language use, 4 (Likert-scale) questions on language attitudes and 4 (Likert-scale) questions on language proficiency. Based on their answers, a language dominance score could then be computed. This score could range from -218 to +218, with the higher the positive number, the more dominant the participant was in English, and the more negative the number, the more dominant they were in Spanish. When the score of the language dominance was closer to zero, it indicates a balanced bilingual. Participants completed the survey on their own before the interview and word description task. The survey is not in the appendix but can be found here <https://sites.la.utexas.edu/bilingual/using-the-blp/access-testing-materials/>.

### **3.4.2 Interviews**

After a participant completed the survey, we met over Zoom to conduct the interview, which was recorded. All participants were interviewed in English; however, at times, we both spoke in Spanish. The interview ranged between 17 and 30 minutes. For the interview, I followed a semi-structured procedure, allowing the students to elaborate on any raised issues (Dörnyei, 2007). The interview consisted of questions surrounding participants' educational, cultural, immigration and linguistic background. This was followed by questions about experiences and the challenges participants faced concerning their languages (Spanish and English) and as immigrants and how they overcame those barriers. Previous research has shown that elicited immigration narratives can reveal how individual immigrant experiences correlate with a specific emotion skill or attitude (to recognize and control emotions and behaviours) that can influence the language in which the emotions are expressed (Marian and Kaushanskaya, 2008). The script used for the Interview can be found in Appendix B.

### 3.4.3 Word description task

During the Zoom session, after the interview, the participants completed the word description task (see Appendix C). The task was completed in both English and Spanish. The word description task ranged between 10 to 15 minutes in length. This final task was based on Pérez-Luzardo Díaz and Schmidt (2016). For this task, participants heard a series of word pairs; first, they heard a word in English ‘bike’ followed by the equivalent word in Spanish, ‘bicicleta.’ Then they were asked to describe how they felt using the first image that comes to mind that related to the word in English and identify the degree of emotionality on a scale of 0 (no emotion) to 5 (very emotionally charged). Then they were then asked the same for the equivalent word in Spanish. Participants were also asked to describe the context surrounding that image and the geographical location of the memory when possible. For example, one of the word pairs that participant 25 was given was ‘forest/bosque.’ I asked her to describe the image in her mind when hearing the word ‘forest.’ She responded, “it reminded me of everything here, actually I walk sometimes, I do little hike on the forest.” I then asked her to give the degree of emotionality that she associated with ‘forest,’ and she responded with 3 out of 5. I then told her the equivalent word in Spanish, ‘bosque,’ and she responded with what came to her mind, which was “my aunt’s house, she lives in a forest, it’s really pretty.” She then rated the word for the degree of emotionality as a 4 out of 5. If a participant did not respond to a particular word, I moved on to the next word on the list. For this reason, I had a list of 81 emotion-neutral word pairs (see Appendix C). I chose emotion-neutral words because I wanted to measure the emotional connection when referring to specific object or places (e.g., dog, garden) which could be related to a certain memory as opposed to emotion-laden words (e.g., funeral, wedding).

From the list of word pairs, I chose ten random words from the master list for each participant (ten in English and their equivalents in Spanish). I was aware that several participants knew each other

since they had taken courses together at university, and it was likely they could communicate with each other and share the list of word pairs with a participant who had not yet completed the task. Therefore, I decided to choose randomly and only kept two to three words that were similar for all participants instead of giving all participants the same word pairs.

### **3.5 Data analysis**

Because this is a mixed-methods study, the analysis consists of both quantitative and qualitative measures. First, I will describe the quantitative analysis, and then I will turn to the qualitative analysis. The quantitative analysis consisted of two parts. The first part involved computing the language dominance score based on the BLP survey data. The data responses from the participants collected by the BLP survey were entered onto a Google spreadsheet that had been previously formatted by the creators of the BLP. The scores for all four components of the survey were then automatically calculated along with a language dominance score which was a combination of all of the four components. To be more specific, the language history component had six questions, each worth between 0 and 20 points depending on the response provided by the participant. Language use had five questions, each worth between 0 and 10 points. Language proficiency had four questions, each worth 0 and 6 points. Language attitudes had four questions, each worth between 0 and 6 points. For the language dominance scores, each component received equal weighting in each language. This allowed for a total possible score for each language of 218. In order to obtain the language dominance score, the total score from one language was subtracted from the total score of the other language, which rendered a language dominance score ranges between -218 and +218. To interpret the number, it is necessary to know that a score near zero indicates a balanced bilingual in terms of language dominance. The highest positive score indicates more dominance in English, while the lowest negative scores indicate more dominance in Spanish.



The next quantitative analysis occurred with the word description task. I conducted paired t-tests in SPSS 26 to compare participants' level of emotion for English words to their level of emotion for Spanish words. While it might be ideal to only run this test if using the same words for all participants, I decided that because the words were all emotion-neutral words, I could conduct a paired t-test to determine differences in levels of emotions to Spanish versus English words. In a future study, it might be better to make sure the word pairs are the same for all participants.

Next, I turn to the qualitative analysis used for both the word description task and the interviews. I transcribed the word description task, typing exactly what the participants said as they completed this task. The transcriptions were then analyzed to find themes that emerged. These themes related to the location of the memory (if it was related to Canada or not), why participants felt strongly connected or not to Spanish and English words. As I read through the word description task results, I was trying to determine the image participants had in their minds related to the word to compare the images in each word pair to determine if these images were the same or not. For example, was their image of 'bike' the same as their image for 'bicicleta.' I read each participants' responses thoroughly to attempt to describe why they had a higher level of emotion for a particular word in Spanish compared to its equivalent in English, why they had similar levels of emotions for both words in the word pair or why they had a higher level of emotion for the English word. The themes I was looking for were the level of connection to the heritage language and culture and connection to specific communities (related or not to the heritage language). After thoroughly analyzing the data from this task, I noticed three main patterns, which, will be described in Chapter 4. I then used qualitative analysis to describe three case studies of three participants, one with each of the three patterns found. For each case study, I explain in detail the results of each of the three tasks. This allowed for a more in-depth analysis of each case.

The interviews were transcribed using the software Otter.ai, and then they were then edited manually. The interview was transcribed in the original language it was recorded in, mainly English, but Spanish was also used. I read the transcribed interviews and coded them manually. Each participant was assigned a number from 1 to 25 that served as identification of each participant and protected the participants' confidentiality. I then looked for themes in the interviews that were later used to explain why a participant situated themselves to the memory they shared for each word pair in the word description task. This way, I could attempt to explain why a particular participant reported a higher or lower degree of emotionality for a particular word in Spanish versus its English equivalent. Understanding the immigration narratives elicited in the interviews helped understand why a participant situated themselves to a specific memory. I also analyzed if participants had already been exposed to English before coming to Canada for those not born in Canada and the role that could have played to accelerate their English learning. Lastly, when I was reading over the transcribed interviews, I was trying to understand the relationship the participants had with Spanish and how important they considered their use of Spanish to preserve their heritage culture.

### **3.6 Position of the researcher**

Because I identify as a heritage speaker of Spanish, I was able to understand my participants' points of view. I am Peruvian by birth; I immigrated from Lima, Peru, to the USA and then Canada at age 8. The people I lived with in Peru spoke Spanish, a bit of Quechua and English. The people I currently live with speak English and Spanish. The two people I communicate with the most are my mother, whose first language is Spanish and second language is English, and my partner, whose first language is English and is learning Spanish. It is worth mentioning that when I was a child, I was exposed to Quechua, which was my babysitter's native language. When I was eight years old, my family and I moved to Florida, where I was exposed to English and Spanish in the United States. Later, when I

was nine years old, I came to Canada. Since then, I was exposed for the first time to Canadian English and a diversity of languages due to the multiculturalism in this country.

Throughout my life, I have had the opportunity to listen to different regional varieties of Spanish from places in North America, South America, Central America, the Caribbean and Europe. I also am familiar with British, Australian and American English. The two main languages I learned as a child were English and Spanish. This learning curve was fabulous due to the great influence and support I received from my parents, siblings, teachers and classmates. In addition, I had the opportunity to study in a bilingual Spanish-English school. I consider myself a balanced bilingual, with a high level of proficiency in both Spanish and English. I currently have a passive knowledge at the beginner level of Quechua (i.e., understand some words). I have an intermediate level of Italian and a beginner level of French.

As I have mentioned above, I was exposed to different types of Spanish and English in school and throughout my travelling experiences. Having such an extensive background in different varieties of Spanish and English, in large part due to courses in Spanish linguistics, friends and travelling, I was able to understand the various regional dialects (i.e., Mexican Spanish) of my participants who spoke various types of Spanish. At the end of the interview and word description task, I would share that I, too, was a heritage speaker, and I could relate to them and the language barriers they overcame. If anything, this made me an ideal interviewer since we had this shared history, and I could make them feel more comfortable.

### **3.7 Limitations**

There are some limitations to the methods used in this study that are worth mentioning. First, the BLP survey involves the participants rating themselves, predominantly their language proficiency. In particular for heritage speakers, this can result in a lower score compared to their actual level of

proficiency (Montrul, 2015b). However, the advantage of using this survey is that it was previously tested and considered a reliable and valid survey. It also took about 10 minutes on an average to complete. The next limitation is that the word description task and the interview took place virtually over Zoom, which meant there was no in-person connection between the interviewee and interviewer. Even though I could see the participants' faces, I could not accurately perceive their facial expressions and body posture to determine their reactions as I could in person. Because of this, I could not pick up on cues that could have indicated how honest they were or cues that would show they were not distracted during the word description task and interview. At times, it was also hard to hear over Zoom, and occasionally the image would freeze due to poor internet connection. Therefore, authentic expression and answers could have been said at first, but authenticity could have been lost when asked to repeat it. The final limitation relates to the word description task. It would have been ideal to use the same word pairs for all participants instead of occasionally using different ones. It was also hard to capture their body reactions to a particular word, and I, therefore, could not tell if they were nervous or anxious. The final limitation is that the participants all spoke different varieties of Spanish, and I should have deleted the word pairs that meant different things in different varieties. Instead, I adjusted on the spot and used an equivalent word that the participant understood in their variety of Spanish.

### **3.8 Ethical considerations**

Participants who volunteered to be part of this study emailed me after receiving the announcement about the study. I then emailed the eligible participants the consent form and explained that before taking part in this study, they had to sign the consent form (see Appendix A). After participants returned the signed consent form, I sent them the link to the survey and scheduled the Zoom session in which I conducted the interview and word description task. There were no foreseeable physical risks with participation in this study. However, there was a possibility of discussing issues such as immigration experiences, linguistic discrimination or racism that could have made the participant feel

uncomfortable or upset. If that was the case, participants had the right to refuse to discuss those issues and to refuse to answer any questions that provided them with discomfort. They had the opportunity to withdraw from the study up until one week after completing the interview and word description task. I made sure to let them know the data was safely and cautiously collected. The environment in which the interview and word description task took place was made welcoming and safe for them to share their experiences comfortably as I ensured I was in a private space with no distractions. As the researcher, I informed the participants that their information would remain confidential and that they would remain anonymous when writing the thesis.

### **3.9 Chapter summary**

In this chapter, the methods used to conduct this study are described. A description was given about how the participants were recruited, including the requirements for inclusion in the study. Then the participants were introduced and the three tasks and instruments utilized in the study were described. This was followed by a description of the data analysis, which utilized both qualitative and quantitative methods. Next, the position of the researcher was explained. To end the chapter, the limitations of the methods used and the ethical considerations relevant to the study were described.

## Chapter 4 Results

### 4.1 Introduction

This chapter describes the results that were found for this study using the data gathered from the three tasks (bilingual language profile survey, interview and word description task). To do this, the results will be presented as they address each research question.

### 4.2 Overall results

*Table 1* displays the overall results of the twenty-five participants. The first column reveals the participant's ID number. The second column displays the results for the average levels of emotions for each participant in reaction to hearing the words in English. The third column displays this information for reactions to Spanish words. The fourth column shows the language dominance scores each participant attained based on the information they provided in the BLP. These scores can range from -218 to +218, with a more negative score indicating more dominance in Spanish and a more positive score indicating dominance in English. The last column displays the percentage of word pairs that evoked a different mental representation in the participant's mind. This means that the participant had one image in mind for 'bike' and another image in mind for 'bicicleta.' The participants were given the word first in English and asked to explain the image that came to mind and then were given the equivalent word in Spanish and asked to explain the image that came to mind. In this way, participants would most likely differentiate between the two words; however, as shown in *Table 1*, not all participants did this, and some described a similar image for certain word pairs. I determined if the images were different based on analyzing the participants' responses. An example of when the word evoked different mental images, also presented in *Table 2*, originates from participant 12, who said, "**bike** I think of like a workout bike, like spinning class, not a big fan of it. **Bicicleta**, I imagine like back home in Colombia, every Sunday they had like a road specifically just for bikes. They would promote a

healthy lifestyle. It was called a ‘ciclovia,’ it was good times.” An example of when the word evoked the same mental image, as is presented in *Table 2*, originates from participant 20, who said, “**bike** and **bicicleta** I picture a bicycle. Both bring childhood memories of here.”

Table 1

*Average ratings for level of emotion, language dominance and percentage of words with the same and different mental images in English and Spanish*

<b>Participant ID</b>	<b>Average Level of Emotion: English word</b>	<b>Average Level of Emotion: Spanish word</b>	<b>Language Dominance</b>	<b>Percentage of word pairs with different mental image in English and Spanish</b>
1	1.70	2.70	66.02	70%
2	3.40	3.20	34.33	60%
3	1.30	2.20	17.44	90%
4	1.90	2.90	4.72	100%
5	2.00	3.10	27.88	100%
6	2.90	4.00	-16.80	100%
7	4.40	0.75	27.80	100%
8	2.50	4.40	10.35	100%
9	4.10	2.50	44.50	100%
10	1.80	2.50	-24.25	90%
11	3.40	4.40	10.54	70%
12	3.00	3.20	21.61	90%
13	2.90	4.00	-11.07	100%
14	3.90	4.00	-12.89	90%
15	2.50	2.60	18.62	100%
16	0.40	2.45	-27.06	90%
17	2.60	3.90	15.62	100%
18	2.40	3.70	23.52	100%
19	3.20	3.10	80.83	100%
20	3.70	3.90	-21.52	20%
21	4.60	4.90	-4.54	100%
22	4.60	3.00	95.81	100%
23	4.10	4.00	9.54	90%
24	1.90	2.60	65.12	70%
25	3.70	4.10	-32.33	90%
Average	2.92	3.28	16.95	88.80

*Table 1* addresses the first part of the first research question to determine the strength of language affinity to English and Spanish and partially addresses the second part, which was to determine the factors that affect this affinity. The score for level of emotions can show the language affinity of the participants. The average level of emotion in response to English words was 2.92, and the average level for Spanish words was 3.92. At first glance, it seems that there is a higher affinity for Spanish compared to English, based only on these self-reported levels of emotions in reaction to English/Spanish word pairs. However, to determine if the difference of 1.0 was significant, a paired t-test was conducted. It did not result in significance ( $t(24) = 1.522, p = .07$ ), however, it was approaching significance. This means that there is a possible trend for an affinity toward Spanish, but currently, affinity toward English and Spanish are similar.

To examine levels of emotion further, three patterns emerged. Pattern 1 consisted of 15 participants (1, 3, 4, 5, 6, 8, 10, 11, 13, 16, 17, 18, 21, 24 and 25), which is the majority or 60%, who exhibited a higher level of emotion for Spanish words compared to English words. The level of emotion in Spanish for these participants was significantly higher than the level of emotion in English ( $t(14) = -8.677, p < .001$ ). Of these participants, the majority (60%) were more dominant in English than Spanish. Language affinity to Spanish does not appear to be connected to language dominance in Spanish. In terms of age of arrival to Canada, six participants came between ages 7-12, five came between ages 3-6, two came after the age of 12, and two were born in Canada. Pattern 2 consisted of three participants (7, 9 and 22) who exhibited a higher level of emotion for English words. This accounts for 12% of the participants who participated in this study. Because there were not enough participants for this pattern, a paired t-test was not run. All three participants were more dominant in English than Spanish, which does appear to show a connection between affinity for English and dominance in English. One participant came to Canada between the ages of 7 and 12, the second came after age 12, and the third was born in



Canada. Pattern 3 consisted of 7 participants (2,12,14,15,19,20, and 23) who presented similar levels of emotions in both languages, accounting for 28% of the total number of participants. Similar to Pattern 2, there were not enough participants to run a paired t-test. It is perhaps not surprising that the language dominance of the participants that fall in this pattern is mixed, with five being more dominant in English and two being more dominant in Spanish. The age of arrival to Canada for three participants was between 3 and 6, and for the other four was between 7 and 12. Later in this chapter, I will be analyzing in more detail one participant from each pattern.

To address part of the second part of the first research question about the factors that affect language affinity, I now turn to language dominance. As shown in *Table 1*, the language dominance scores of the participants in the study range from -27 to 96. The lowest possible language dominance score is -218, representing strong Spanish dominance, and the highest possible is +218, which represents strong dominance in English. *Figure 1* also shows the language dominance result scores and has been organized by participant ID. In this figure, bars that point down (below 0) indicate stronger dominance in Spanish and bars that point up (above 0) indicate stronger dominance in English. The closer the bar is to 0, the more balanced the dominance is in both languages.

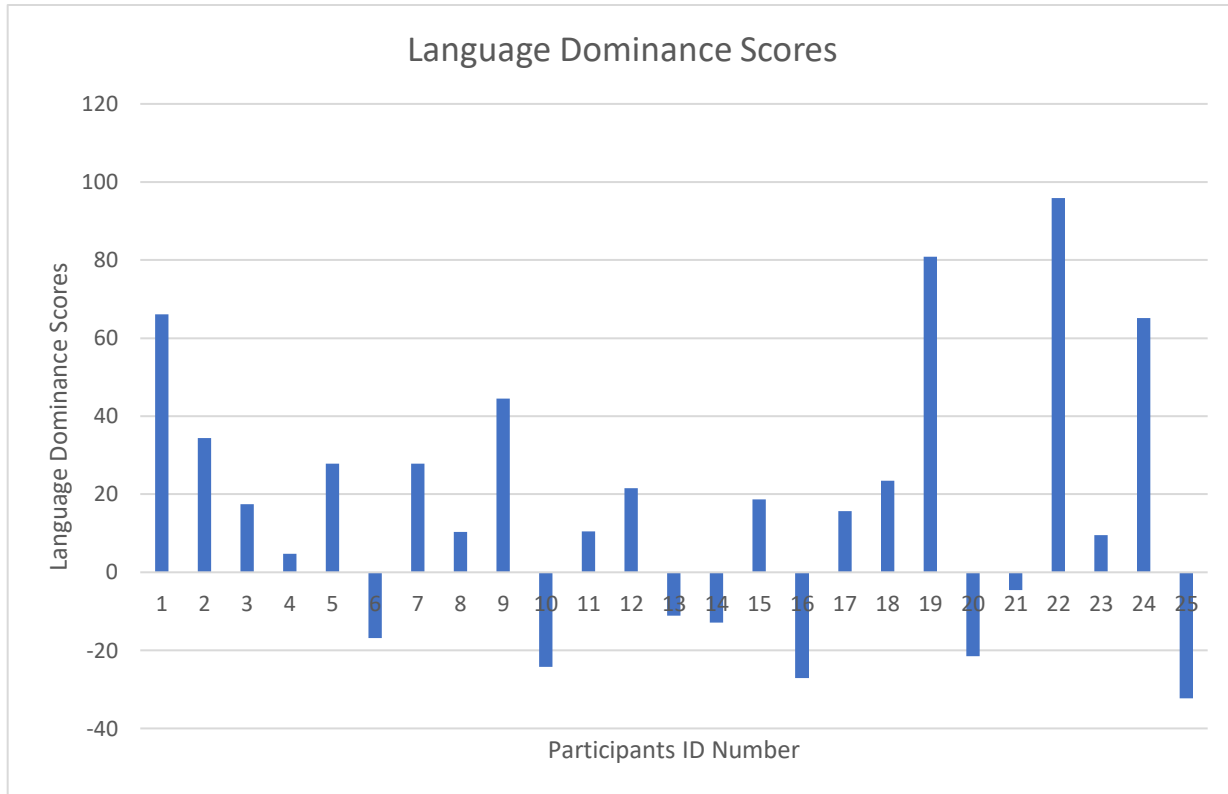


Figure 1. Language dominance scores by participant

Firstly, *Figure 1* shows 18 participants possess more language dominance in English (language dominance score above 0) than Spanish and seven possess more in dominance in Spanish than in English (language dominance score below 0). Next, I turn to the connection between language dominance and level of emotion in reaction to Spanish and English words and examine more closely first participants more dominant in Spanish and then participants more dominant in English. For the 7 participants more dominant in Spanish, their average level of emotions in reaction to English words was 2.89 and 3.68 for Spanish words. While there are not enough participants to run a statistical analysis to determine if this difference is significant, this does point to a possible trend of language dominance in Spanish, resulting in higher levels of emotions in reaction to Spanish words compared to English words. In this case, language dominance in Spanish appears to be connected to language affinity for Spanish. For those 18 participants more dominant in English, their levels of emotions in reaction to English

words was 2.88, and for Spanish words was 3.07; however, this difference did not result in significance ( $t(17) = 0.58, p = 0.58$ ). In other words, these participants exhibit similar levels of emotions in reaction to English and Spanish words. Their language dominance in English appears to be connected to language affinity in both languages instead of just English or just Spanish.

Research question 2 asks if heritage speakers have different mental image representations in their respective languages for the same signifier and then asks what factors might account for this difference. As seen in *Table 1*, that 48% (12/25) of participants reported a different mental image for equivalent word pairs (i.e., bike/bicicleta). However, some participants had the same mental image for a few word pairs and different mental images for most of the word pairs. These participants account for 80% (20/25) of the total participants. *Table 1* also illustrates that participant 20 reported 2-word pairs with different mental images, and as such, he is an outlier. The factors that can possibly explain this are that participant 20 is considered a balanced bilingual, which means he is equally dominant in both languages. He arrived in Calgary at a young age, and with the help of his family, always kept his Colombian culture and language alive. It shows that his memories and emotions from childhood are close to equal in both languages. He is a particular case because he grew up with two strong cultures: English at school and work and another associated with Spanish at home with family and siblings.

In order to show in more detail participants' responses to word pairs, I selected one word-pair to show in detail. *Table 2* displays the responses of 24 participants for the word pair 'bike/bicicleta.' The 25<sup>th</sup> participant is missing because that participant did not respond to this word pair.

Table 2  
*Responses associated with Bike/Bicicleta word pair*

Participant ID	Level of emotion	Response from participants
1	Bike:2/5 Bicicleta:5/5	With <b>bike</b> I picture my bike downstairs. With <b>bicicleta</b> I see myself learning how to ride my bike back home.
2	Bike:4/5 Bicicleta:4/5	With <b>bike</b> I think of a bicycle. With <b>bicicleta</b> I see more like a picture of a bicycle.
3	Bike: 0/5 Bicicleta:3/5	<b>Bike</b> is more like the mountains. <b>Bicicleta</b> I see more like a street.
4	Bike:1/5 Bicicleta:4/5	<b>Bike</b> I see the street. <b>Bicicleta</b> reminds me of my childhood.
5	Bike:2/5 Bicicleta:3/5	<b>Bike</b> I picture a little bike with a basket here. <b>Bicicleta</b> I imagine a little basket.
6	Bike:4/5 Bicicleta:4/5	<b>Bike</b> is summer. <b>Bicicleta</b> is more like work.
7	Bike:5/5 Bicicleta:3.5/5	<b>Bike</b> I see my bike in my garage, I can go jump on it and start going around my neighborhood, it's an emotion I didn't even noticed. <b>Bicicleta</b> , reminds me of my childhood, something that is in the past. I see more like a beat down old bike. Like an old 50's type of bike.
8	Bike:4/5 Bicicleta:5/5	<b>Bike</b> is more like exercise. <b>Bicicleta</b> I see 'viaje' back home, like my childhood.
9	Bike:5/5 Bicicleta:2/5	<b>Bike</b> I picture my husband, my friend and I biking in the parks here in Calgary. <b>Bicicleta</b> is more like the music video from Shakira and Carlos vives.
10	Bike:3/5 Bicicleta:4/5	<b>Bike</b> I picture my bicycle. <b>Bicicleta</b> I picture my bike I had as a kid back home.
11	Bike:0/5 Bicicleta:5/5	<b>Bike</b> I see myself falling. <b>Bicicleta</b> reminds me of the song of Carlos Vives.
12	Bike:3/5 Bicicleta:4/5	<b>Bike</b> , I think of like a workout bike, like spinning class, not a big fan of it. <b>Bicicleta</b> I imagine like back home in Colombia, every Sunday they had like a road specifically just for bikes. They would

- promote healthy lifestyle. It was called a 'ciclovia', it was good times.
- 13                    Bike:2/5  
                          Bicicleta:4/5        **Bike** is probably like another childhood memory. Like me riding my bike here. **Bicicleta**, is more like me riding my bike with my family back home.
- 14                    Bike:3.5/5  
                          Bicicleta:4.5/5      **Bike** reminds me of the recent bike I bought this year. **Bicicleta** reminds me of the song of Shakira and Carlos vives.
- 15                    Bike:4/5  
                          Bicicleta:4/5        **Bike** I imagine riding my bike here and in Venezuela. **Bicicleta** I Imagine riding my bike as well, but this time more back home.
- 16                    Bike:0/5  
                          Bicicleta:0/5        **Bike** I see a bike. **Bicicleta** I didn't really see anything. In both occasions I saw a blue bike but that's it.
- 17                    Bike:3/5  
                          Bicicleta:2/5        **Bike** I think of like going to the mountains like biking. **Bicicleta** I think of the Shakira song, the one with Carlos Vives.
- 18                    Bike:1/5  
                          Bicicleta:3/5        **Bike** so weird but I imagine the bike my dad just bought. **Bicicleta**, I hear the song 'Bicicleta' by Carlos vives. This song reminds a lot of my Colombian friends. This is horrible, can't believe how I feel connected to these words.
- 19                    Bike:4/5  
                          Bicicleta:3/5        **Bike**, I see myself biking, I enjoy biking outside. **Bicicleta** is the same image a me biking, but I associate it more with Peru and learning how to bike when my dad like let go of the seat and I nearly fell into like a cactus plant. I have mix feelings, more like a negative memory.
- 20                    Bike:3/5  
                          Bicicleta:3/5        **Bike** and **bicicleta** I picture a bicycle. Both bring childhood memories of here.
- 21                    Bike:5/5  
                          Bicicleta:5/5        **Bike** mountain biking here. **Bicicleta** mountain biking back home.
- 22                    Bike:5/5  
                          Bicicleta:5/5        **Bike** I see a motorcycle; my boyfriend had a motorcycle and he had an accident in his motorcycle. **Bicicleta**, I think of Carlos Vives, because I went to his concert and then he rode a bicycle.

23	Bike:5/5 Bicicleta:5/5	<b>Bike</b> , the image I see is the bike I used use to bike to work when I first came to Canada. <b>Bicicleta</b> , I imagine where I first learned how to ride a bike in El Salvador. I literally remember when my auntie taught me how to ride my bike.
24	Bike:4/5 Bicicleta:5/5	<b>Bike</b> , the imagine when I learned how to ride a bike with my dad here <b>Bicicleta</b> is more biking with my cousins here.

*Table 2* displays those 16 participants (1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 15, 19, 21 and 23) who represented 67% of the total number of participants who had different mental images for the word pair “bike/ bicicleta” that correlated with “bike” being a memory from Canada and “Bicicleta” being a memory from the country in which their heritage language is spoken and was often referred to by participants as ‘back home.’ The language dominance of the majority of the participants (12/16) with different mental images was English, making it seem like there is no connection between language dominance and mental representations of English/Spanish word pairs. Age of arrival to Canada paints a clearer picture. The majority (N=8) of the participants came between the ages of 7 and 12, four came between ages 3-6, and three arrived at age 12 or older. Age of arrival appears to be a factor for the participants who were all born outside of Canada. These participants likely carry a strong memory connection with memories associated with the Spanish-speaking country from which they or their parent(s) are from due to having lived there for part of their childhood. They were old enough to separate emotions and memories from here and their country of origin.

There were also 7 participants (9, 14, 16, 17, 18, 20 and 24) representing 29% of the total participants who had the same mental image for the word pair “bike/ bicicleta.” The majority of these participants, 5/7, are more dominant in English than Spanish, which shows a possible connection between language dominance and similar mental images. However, similar to the participants with

different mental images, the age of arrival to Canada appears to be a more contributing factor. Three of the participants were born in Canada, most of their memories were about Canada and the English language. Three participants arrived between the ages of 3 and 6, and one arrived at age 9. Participants who arrive between the ages of 3 and 6 seem to be split in terms of whether they display similar or different mental images since 4 displayed different mental images and 3 displayed similar mental images. For the participant who arrived at age 9, she reported using mostly English in her daily professional life and with her sister, explaining why she has the same memories for each word pair. However, she does still speak Spanish at home with her parents. Participant 16 had no image for either word other than a blue bike for English and Spanish words. The participant did not specify a specific memory and even admitted to never possessing a blue bike, her language affinity is unclear. That participant came to Canada at age six and reported stronger dominance in Spanish compared to English.

### **4.3 In-depth analysis of three participants**

In this section, I describe three participants in-depth from Pattern 1 (higher level of emotion in reaction to Spanish words), Pattern 2 (higher level of emotion in reaction to English words) and Pattern 3 (similar level of emotion in reaction to both Spanish and English words). For Pattern 1, participant 25 was selected. For Pattern 2, participant 22 was selected. Finally, for Pattern 3, participant 14 was chosen. The reason why I picked these three participants from the patterns that were found is because they were able to expand upon their answers when prompted during the interview and word description task. They would offer to explain a reason and/or a history behind their answer, which provided further insight into why they displayed these particular results during the study.

This section will also address the first research question to explain why their level of emotion is higher in Spanish for participant 25, higher in English for participant 22 and more balanced towards both languages for participant 14. By analyzing all of their data in detail, possible reasons for the

patterns found will be discussed. This section will also be addressing the second research question to determine if participants have different mental images representations in their respective languages for the same word. It explains the possible causes and why these three participants demonstrate certain patterns. For each of the three participants, the following information will be presented: (1) life history as it relates to language use and preferences, (2) responses to the word description task and (3) interpretation of the word description task using the information provided during the task and the interview.

#### **4.3.1 Participant 25**

Participant 25 falls into Pattern 1 (higher level of emotion in reaction to Spanish words). As shown in *Table 1*, the average ratings that this participant gave in reaction to words in Spanish was 4.10 out of a possible 5, compared to 3.70 in reaction to words in English. She immigrated to Canada in July of 2009 at the age of 12. She had previously visited Niagara Falls, Ontario, prior to coming to Calgary. She completed kindergarten to grade 7 in Mexico. Her schooling in Mexico consisted of half of the day being taught in English and the other half in Spanish. This participant explained that the level of English was not the same as it is in Canada since it is a foreign language in Mexico. She completed grade 8 through university in Canada. She found it very hard for the first couple of years; moving to a new country, learning a new language and adapting to a new environment. She came to Canada during her pre-teen years, and when she started school, she felt embarrassed because she made a mispronunciation error, and the whole class laughed at her. Since that incident, she never wanted to talk in class or answer any questions because she felt ashamed, giving her a sense of insecurity when speaking in English.

She felt very confused about which group she belonged to because she thought, “I am Latin here, who will I be friends with?”. After a couple of months, she finally decided to be friends with the Latino community; because of that, she felt her English never improved. Even though participant 25 came to



Canada at the age of 12, she did not start practicing her English and improving it until she was 14 years old. As she stated, after entering school in grade 8 and the embarrassing event she went through, she became friends with mostly Spanish speakers and did not practice or improve her English for a whole year of grade 8, which she would have been 13 by then. She believes that if her majority of friends had not been Spanish speakers, her English would have been much better. She would not feel that her English still needs improvement, as she claimed to still be struggling with it, not quite feeling comfortable with it.

Now that she is older, she has English-speaking friends, but her close friends are still Hispanic. She believes Spanish is a more beautiful language compared to English. She speaks 80% Spanish throughout her day, with family, friends, siblings, and her partner. She only uses English to a maximum of 20% with some friends who do not speak Spanish or at work. She tends to mix her languages when she knows the other person speaks both languages, but she tries very hard not to because she wants to remember all the words in both languages. When she writes notes, she does it in Spanish for her parents and siblings and only occasionally in English. When she talks to herself, it is mostly in Spanish, and she occasionally thinks in English. When she watches TV and listens to the radio, she does it in both languages, 99% of her music is in Spanish, only 1% is in English, and when she searches for things on the Internet, she does it in both languages. Participant 25 explained that she maintains a good level of Spanish and has not lost fluency. She has taken Spanish courses in university while completing her degree and believes it has helped her maintain fluency. She acknowledges that she is bilingual but is quite aware that English is her second language because she has what she considers a strong foreign accent. She only considers herself a fluent English speaker outside of Canada, to the point that she could even teach it.

Lastly, participant 25 explained she has not been able to fully adapt to Canadian culture. She has expressed that it is important for her to maintain her language and family culture. That is the reason why she is quite firm with her younger siblings in maintaining their language because language is the base and foundation for culture, and if they do not know the language, they will never be able to fully embrace their culture. She only cooks dishes from Mexico and has never cooked any Canadian dish. She had a hard time adapting to Canadian mealtimes, but after a long battle, has finally adapted.

Table 3 demonstrates the word description task that participant 25 completed. Column one shows the results of the level of emotion the participant felt for the ten words in English and ten equivalent Spanish words. The second column shows the response given by participant 25 for each word pair that was evoked.

Table 3

*Word description task completed by Participant 25*

Level of Emotion (out of 5) for each word pair	Response from participant
<b>Bed:</b> 5/5 <b>Cama:</b> 3/5	<b>Bed</b> , I picture me sleeping, comfortable. <b>Cama</b> , interesting now it feels different, I pictured my mom telling me to make ‘mi cama’(my bed) like ‘vaya hacer su cama’ (go make your bed).
<b>Bell:</b> 4/5 <b>Campana:</b> 4/5	For <b>bell</b> and <b>campana</b> I thought of the typical yellow bell loteria from Mexico, the lottery has a bell on the front of it.
<b>Bottle:</b> 5/5 <b>Botella:</b> 2/5	<b>Bottle</b> , I picture wine. <b>Botella</b> I imagine a bottle but a beer. A beer like the red one, I don’t remember what it’s called.
<b>Cow:</b> 2/5 <b>Vaca:</b> 5/5	<b>Cow</b> I picture a healthy beautiful cow with grass. It reminds me of a commercial promote like drink milk here or something like that. <b>Vaca</b> reminds me that’s so funny, it reminded me of a piece that my grandma had at her house, it’s where you put your fork, knives and spoons, it had the colors of a cow. That’s what it reminded me of.
<b>Dog:</b> 5/5 <b>Perro:</b> 5/5	<b>Dog</b> , I think of Nutella my dog. <b>Perro</b> , I see two pictures literally. One was when ‘un perro’(a dog) bit me in Mexico like a street dog. The second one it was a dog that we rescued and his name was doggy. I saw those two images getting bitten by that dog in a street and then doggy who we had to leave in peacekeeping.
<b>Doll:</b> 2/5	<b>Doll</b> , I imagined a Barbie.

**Muñeca:**3/5

**Forest:**3/5

**Bosque:**4/5

**Garden:**3/5

**Jardín:**5/5

**Ocean:**4/5

**Oceano:**5/5

**School:**4/5

**Escuela:**4.5/5

**Muñeca**, I pictured my baby dolls and me carrying them.

**Forest**, it reminded me of everything here, actually I walk sometimes I do a little hike on the forest.

**Bosque** my aunt's house, she lives in a forest, it's really pretty.

**Garden**, see my garden.

**Jardin**, I picture my house in Mexico, my grandma has this big house and then she divided it after. So, she made one house here and the other there and it had a huge patio. The other house on the back there was one where we were sharing a backyard with my uncle. He is from Germany. My aunt met my uncle who is a chef and he called his restaurant 'Oh Jardin' it reminds of his food.

**Ocean**, I pictured when I was in Washington, we went to the ocean and we went camping. It was five hours from Washington, cold obviously. There were wild horses around it was completely different from what I experienced in the past.

**Oceano**, reminds me of Mexico.

**School** reminds me of Uni.

**Escuela**, I picture my school in Mexico called 'Mardecor.' That's the first thing that came to mind.

Participant 25's dominance score was -32.34. Scores between 0 and -218 indicate more language dominance in Spanish compared to English. This score represents a certain preference and comfort level with Spanish. This inclination towards Spanish could be due to two reasons. First, she felt embarrassed and ashamed she made a mistake when speaking English in front of her class, and second, the majority of her Spanish-speaking friends contributed to her isolation from the anglophone community and provided her with refuge in the Latino community. Regarding the different and same mental images, participant 25 falls under the pattern of showing 100% different mental images, and this is likely because she came to Canada at an age where she could hold enough memories from Mexico which were completely different from the ones she went through here. She was old enough to differentiate situations and events according to both place and language.

Participant 25 displays in *Table 3* very rich images and a higher emotional level in Spanish, particularly for the words (cow/vaca, forest/bosque, garden/jardín), which makes sense due to her

background and language dominance in Spanish. For the first word pair, 'vaca'(cow), she feels a higher level of emotion to the Spanish word. It reminds her of an object that her grandma had in her house back in Mexico. The word itself is not related to the image but more to so the endearment sentiment towards her grandmother and what she posed at her house, which left a strong memory. For the second word pair, 'bosque'(forest), she feels closer to the Spanish word because it reminds her of her aunt's house. The word is connected to family and the memories she cherishes with them, particularly at her aunt's house in the forest. For the third word pair, 'jardín'(garden), the Spanish word reminds her of family again. She described the very vivid image of her grandma's house and how she had divided for her family and her aunt and uncle to leave in. She described the big backyard and described her uncle's restaurant that is called 'Oh Jardin and how delicious his food was.' All these vivid images from the Spanish words relate to family, certain objects, cooking, houses, garden that remind her of Spanish-speaking family and the vivid and happy times she was able to live with them. This caused the emotions in Spanish to be a bit higher than in English because she stills holds to the memories very vividly in her mind.

#### **4.3.2 Participant 22**

Participant 22 falls into Pattern 2 (higher average level of emotion for English words than for Spanish words). As shown in *Table 1*, the average ratings that this participant gave in reaction to words in English was 4.60, on average compared to 3.00 in reaction to words in Spanish. There are several factors that could account for this. She immigrated to Canada in December of 2006 when she was nine years old. When she first arrived to Canada, she assumed she would be going back to Colombia soon because she made it clear to her family she did not want to move to Canada. In Colombia, she had completed kindergarten to grade 5. When her family arrived, she was not able to start school right away because the permits and requirements for her to attend school were still in process. Therefore, she stayed

home for a year and felt quite lonely because she only interacted with her parents. When she started school, she was completely immersed in English. There were no Spanish-speakers at the school.

Participant 22 considers Spanish to be a beautiful language in comparison to English. At home, she communicates with her siblings and parents in English. She speaks English with her friends and only has two close Spanish-speaking friends, but she communicates with them in English as well. She mixes her Spanish into her English about 30% of the time, but not vice versa. Occasionally, she will speak Spanish with her mom, but she also reported a loss of fluency. She preserves certain memories from Colombia. She is currently in her first year of university and considers her English to be at a high level. She prefers to write, read and text in English. She uses a mix of both Spanish and English when she has to write grocery lists. She watches TV and listens to the radio in English. The music she listens to is sung in English, and she occasionally listens to Hispanic music. When searching on the Internet, she searches in both languages.

Participant 22 is not attached to her heritage culture, which she identified as Colombian. She feels very comfortable and is used to Canadian customs and culture. She has never enrolled in Spanish courses at the university level. She has been told by her family that preserving her culture and language is important but believes it is not necessary to preserve because she now lives in Canada. When it comes to cooking, she has stated that she does not cook any dishes from Colombia other than when her family prepares a cultural dish. She prefers to prepare dishes from other cultures. She feels she has adapted to mealtimes here and could not go back to what they were in Colombia.

Table 4 demonstrates the word description task that participant 22 completed. Column one shows the results of the level of emotion the participant felt for the ten words in English and ten equivalents Spanish words. The second column shows the response given by participant 22 for each word pair that was evoked.

Table 4

*Word description task completed by Participant 22*

Level of Emotion (out of 5) for each word pair	Response from participant
<b>Bed:</b> 5/5	<b>Bed</b> , I imagine my bed.
<b>Cama:</b> 1/5	<b>Cama</b> , I see just a bed.
<b>Bell:</b> 5/5	<b>Bell</b> , I picture a doorbell that we have for my dog to ring every time he has to go pee.
<b>Campana:</b> 1/5	<b>Campana</b> , has no image, nothing.
<b>Bike:</b> 5/5	<b>Bike</b> , I see a motorcycle, my boyfriend had a motorcycle and he had an accident in his motorcycle.
<b>Bicicleta:</b> 5/5	<b>Bicicleta</b> , I think of Carlos Vives, because I went to his concert here and then he rode a bicycle.
<b>Book:</b> 3/5	<b>Book</b> , reminds me of school.
<b>Libro:</b> 3/5	<b>Libro</b> , reminds me of my friend that had to take Spanish.
<b>Dog:</b> 5/5	<b>Dog</b> , I picture my dog.
<b>Perro:</b> 1/5	<b>Perro</b> , no image, nothing.
<b>Doll:</b> 3/5	<b>Doll</b> , I think of like Barbies, the ones I had in Colombia.
<b>Muñeca:</b> 4/5	<b>Muñeca</b> reminds me of Colombia.
<b>Forest:</b> 5/5	<b>Forest</b> , I see hiking here.
<b>Bosque:</b> 0/5	<b>Bosque</b> , nothing, nothing no image.
<b>Garden:</b> 5/5	<b>Garden</b> , I picture gardening in the retirement home, where I work.
<b>Jardín:</b> 5/5	<b>Jardin</b> , I see my grandma in Colombia.
<b>Ocean:</b> 5/5	<b>Ocean</b> , I see the beach like vacation.
<b>Oceano:</b> 5/5	<b>Oceano</b> , I would think of my friend here.
<b>Island:</b> 5/5	<b>Island</b> , is vacation.
<b>Isla:</b> 5/5	<b>Isla</b> , I think of my friend again here.

Participant 22's dominance score was 95.81, indicating dominance for English. Language dominance scores can range from -218 to +218, with positive scores indicate more dominance for English. Participant 22 stated that she prefers to speak in English at home and outside her household,

which has potentially weakened her Spanish. While she stated that she understands Spanish and exhibited some memories related to Spanish, her English has taken over. She reported that her vocabulary in Spanish is not what it used to be, noting a loss of much of it. She is not comfortable speaking and expressing her feelings in Spanish because she feels she lacks the vocabulary to do so and often second-guesses herself. When she does recall memories after hearing words in Spanish, it is more because of the specific memory attached to the word and not because she felt attached or connected to Spanish.

*Table 4* displays participant 22's levels of emotion for the responses she had in the word description task. For each word pair, her levels of emotion in reaction to the English words are higher than her levels of emotion in reaction to the Spanish word. These responses go hand in hand with her language dominance in English. In addition, she described different mental images for each word pair, equating the Spanish word in each word pair with one memory and the English word in each word pair with a different memory. This could be because she was able to remember her nine years in Colombia prior to arriving in Canada.

The three-word pairs, –bell/campana, dog/perro and forest/bosque, are examples that demonstrate levels of emotion at the highest level possible, a 5, in reaction to the English word compared to a 0 or 1 in reaction to the Spanish word in the same pair. There are a few possible explanations for these responses. In the first word pair, 'bell' reminded participant 22 of her dog and the bell he had to ring in order to be let outside to urinate. She felt connected to her dog and the memory of him. He was her pet only while living in Canada and not in Colombia. In the case of the Spanish word, she had no image, and her level of emotion score was very low. She potentially does not recall memories from Colombia either because she was too young or because she did not have a dog in Colombia. For the second word pair, she connected 'dog' to her dog and selected a high level of emotion for this word.

For the Spanish word ‘perro’ (dog), she did not produce any image. This could have been potentially due to the fact that her family and her household in Colombia most likely did not have had a dog, which cannot result in a memory recollection. For the third word pair forest/bosque, the English word elicited memories of hiking in Canada, while the Spanish word elicited no memory. For these three word pairs, the images related to the English words are highly connected to her memories in Canada that have taken place with her family, dog and friends. She holds no images with these particular words in Spanish, likely due to not remembering scenes from her early childhood where these words would have potentially been used or from not having experiences related to these words as a young child. It is also important to note that when the participant reacted with no memory or image to words in Spanish, she indicated that she knew what the word meant but simply could not think of an image or memory associated with that word.

#### **4.3.3 Participant 14**

Participant 14 falls into Pattern 3 (similar levels of emotion in reaction to both Spanish and English words). As shown in *Table 1*, the average ratings that this participant gave in reaction to Spanish words was 4.00, on average compared to 3.90 in reaction to words English it was quite balanced. She immigrated to Canada in June of 1999 at the age of 3. Her uncle had been living in Canada for a couple of years. When her family first arrived, they stayed at her uncle’s house for a few days, later moving into their own apartment. She did not think she was returning to Mexico because home was wherever her parents were to her as a three-year-old. For her first two years in Canada, she stayed home as she was too young to attend kindergarten. She grew up watching TV at home in Spanish. She was exposed to English at the age of 5 at school. She explained that school was challenging for her at first because she did not know any English and thought that speaking English meant dropping the last vowel of a Spanish word. In addition, it was hard for her to settle into any friend group. She started kindergarten in a



bilingual school. She was not only having a hard time with her English but also with Spanish as it was difficult to understand the various accents of the Spanish-speaking students with their different regional lexicon and pronunciation. For grade one, she was transferred to an all-English school, but because she had no previous English knowledge and was still struggling with her writing, in particular, she had to repeat grade one.

Participant 14 speaks only in Spanish with family and siblings. She speaks in English with her friends who do speak Spanish. She has stated that she only mixes her languages about 30% of the time, but that is only because she forgets certain words in either language. She has been improving her Spanish and has not lost any fluency by taking courses in university. Travelling back to Mexico often has also helped her pronunciation in Spanish to sound more Mexican. In regard to her English, she now considers herself a fluent English speaker. She has also noticed that she cannot express herself in English at times because on occasion, her Spanish interferes with her thought process, but not the other way around. Participant 14 only watches movies in Spanish if they were originally filmed in Spanish; otherwise, she watches them in English. She uses subtitles with English language movies because reading the subtitles helps her understand the actors. She listens to music mostly in Spanish. She uses both languages to search for things on the internet.

Participant 14 finds Spanish to be a more beautiful language than English. Throughout the years, she realized it was hard to call Canada home because her parents maintained their Mexican culture, Spanish language and religion as these three items were important to them. She believes that it is important to maintain her Mexican culture and the Spanish language and hopefully transfer both to her future children. Participant 14 has always found it challenging to immerse herself into Canadian culture because her Mexican culture is alive at home. That is, she only cooks dishes from Mexico and never cooks Canadian dishes. She has not been able to adapt to mealtimes. She eats dinner between three or

four o'clock in the afternoon, which is the same time as in Mexico and has snacks or a light meal around six or seven o'clock in the evening.

Table 5 demonstrates the word description task that participant 14 completed. Column one shows the results of the level of emotion the participant felt for the ten words in English and ten equivalent Spanish words. The second column shows the response given by participant 14 for each word pair that was evoked.

Table 5

*Word description task completed by Participant 14*

Level of emotion (out of 5) for each word pair	Response from participants
<b>Ball:</b> 3.5/5 <b>Pelota:</b> 5/5	<b>Ball</b> , I imagine a red plastic ball, like a toy ball, you know the little kid ones, it reminds me of Mexico. <b>Pelota</b> , I see a soccer ball, it reminds me of back home and here.
<b>Bell:</b> 5/5 <b>Campana:</b> 5/5	<b>Bell</b> , I see Beauty and the Beast. <b>Campana</b> , I think of Christmas, reminds me of family gatherings and I associate that word to 'Noche Buena' (Christmas Eve).
<b>Bike:</b> 3.5/5 <b>Bicicleta:</b> 4.5/5	<b>Bike</b> , reminds me of the recent bike I bought this year. <b>Bicicleta</b> , reminds me of the song of Shakira and Carlos Vives.
<b>Bottle:</b> 5/5 <b>Botella:</b> 5/5	<b>Bottle</b> , is a water bottle; I always have water bottles with me. <b>Botella</b> is Tequila, I picture my family being together.
<b>Box:</b> 0/5 <b>Caja:</b> 2/5 <b>Cup:</b> 5/5 <b>Taza/Pizo:</b> 3/5	<b>Box</b> , I think of a cardboard box. <b>Caja</b> , sounds more familiar but I still see a box. <b>Cup</b> I see coffee cup, I always need my coffee. <b>Taza</b> for me is like a huge cup, but I see the artists in Mexico, they always had orange cups like the cute little ones. They would sell their 'ponche' (hot fruit punch) they would boil fruits with alcohol; I don't like it but that's what I imagined.
<b>Dog:</b> 5/5 <b>Perro:</b> 5/5	<b>Dog</b> is like a husky; I am putting it out in the world that I'm going to get a husky.

**Doll:**3/5

**Muñeca:**4/5

**Forest:**5/5

**Bosque:**4/5

**Garden:**4/5

**Jardín:**2/5

**Perro** is a Husky, in Mexico my aunt's dog just had little baby Husky puppies.

**Doll** I think of those Sour Patch dolls or cabbage patch, they were a big thing when I moved here and I thought they were so ugly.

**Muñeca** is a porcelain doll, reminds me of the layover we had in LA and my aunt who lived in San Diego went and visited us and she brought me a porcelain doll and the doll's knee broke on the airplane.

**Forest**, I think of my community, well the name of it.

**Bosque**, reminds me of Mexico like when we left in 1999, there was a family gathering and that was our last family gathering before we came here.

**Garden** I see flowers and like green grass.

**Jardín**, jardín de niños or something like that. I think it means day school or preschool. I never went, I just remember the name.

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Participant 14's language dominance score was -12.89. Because the number is close to 0, it indicates dominance in both languages, with a slight preference towards Spanish. Even though this participant arrived in Canada at age 3, she preserves her Mexican culture and the Spanish language she considers part of her Mexican culture. To do this, she speaks Spanish at home and with her siblings and has also completed several Spanish courses at the university to improve her Spanish. She stated that she has improved her Spanish to a point that she has not lost fluency. Her English proficiency is also quite high because she had a strong base in primary, secondary, and university, where she could improve this language.

*Table 5* shows that Participant 14's levels of emotion in reaction to words in English are similar to her levels of reactions to words in Spanish. This goes hand in hand with her language dominance score, which also showed similar dominance levels for each language. Participant 14 reported, with one exception, different mental images for the words in each word pair. This could be because, as she

mentioned in her interview, even though she lives in Canada, her parents, with whom she resides, maintain their Mexican culture and customs and, always speak in Spanish at home. For the word pairs dog/perro, doll/muñeca and forest/bosque, participant 14 reported a similar level of emotion in reaction to both languages. For the first word pair, dog/perro, the participant described a similar image of a type of a breed of a husky dog. However, the images differ in origin. In response to the word 'dog' in English, she described a desire to have a dog in Canada, while in reaction to the equivalent word in Spanish, she described the image of her aunt's dog in Mexico. Both words evoked the highest level of emotion, which was a 5. For the second word pair, 'doll/muñeca,' she described two different images. While the English word evoked the image of a doll she saw when she first arrived in Canada that she did not like, the Spanish word evoked the image of a doll she received from her aunt in Mexico. The level of emotions was quite similar, 3 in reaction to the English word and 4 in reaction to the Spanish word. One image reminded her of her arrival to Canada, and the other reminded her of her aunt in Mexico. Both memories carry strong emotions. She described moving to Canada as a challenging and confusing, and she associated the doll with that time. The 'muñeca' (doll) that she received was a precious gift from her aunt, and the fact that she broke the leg of the doll resulted in the sense of sadness and not wanting to disappoint her aunt. The third word pair, 'forest/bosque,' evoked two strong memories, with a level of reaction of 5 to the English word and 4 to the Spanish word. The English word reminded her of flowers and gardens. The Spanish word reminded her of her family gathering before arriving to Canada. Both words evoked different images with similar levels of emotions, similar to the other two-word pairs described previously. As mentioned, this participant has vivid images in response to words in both languages because she uses both of them daily and travels quite often to Mexico. This has helped her hold on to memories both from Mexico and in Canada. In addition, she has been trained since she arrived in Canada that the Spanish language and her Mexican culture are important to preserve. At the

same time, it was important to learn English to succeed and adapt well to life in Canada. She took this as an opportunity to manage her two languages hand in hand and reported achieving a high level of fluency in both.

## **Chapter 5 Discussion of Results**

### **5.1 Introduction**

In line with Pavlenko (2008), the current study results have demonstrated that words can evoke varying levels of emotionality in the bilingual lexicon. In this chapter, the results and findings will be interpreted. Then it will be explained how this relates to the previous literature.

### **5.2 The connection to language and emotions**

The majority of the adult heritage speakers of Spanish in the study exhibited higher levels of emotions in response to Spanish words compared to their equivalent English words. Delving into the participants' explanations from the word description task and background information provided on the surveys and interviews offers possible explanations for why this occurred. After analyzing the data quite closely, it was determined that every participant varies depending on their personal situation and experience with the language. It was evident that many factors, including but not limited to age, time, place, experience, personal choices, preference and parental influence and guidance, all played an important role in the use and maintenance of the heritage language of the participants. Next, I will describe why I think the participants fell into the three patterns explained in chapter 4 for their different levels of emotions in reaction to English-Spanish word pairs.

#### **5.2.1 Pattern 1**

In this pattern, participants reacted to Spanish words with a higher average level of emotion than English words. These participants shared similar experiences and patterns differently from the other participants for a variety of reasons. The following factors is shared by the participants that exhibited this pattern: 1) immersion in Latino communities; 2) more Spanish speaking friends; 3) previously experienced an embarrassing moment at school; 4) a feeling that English has not improved due to

speaking more Spanish and less English; 5) consistent travel to the Spanish-speaking country of their heritage; 6) higher comfort level in Spanish due to fear of making mistakes in English. These participants pattern similarly to balanced bilinguals whose heritage culture is very much alive. They speak English very well, but it is the lack of confidence in themselves which leads to what Sanchez-Muñoz (2015) referred to as linguistic insecurity in their heritage language (Spanish). In the interview, these participants mostly expressed that they did not think they would complete their university degree because they felt their English was not good enough. Also, they expressed that when they first arrived in Canada, they often resorted to finding friends that also spoke Spanish in school or, when it came to university, always wanted to stay connected to Spanish speakers. For just over half of the participants, language dominance could have played a role. These 9 participants were more dominant in Spanish than English. Language dominance is a reflection of language use, language preferences, language attitudes and language proficiency. For these participants, these factors could have played a role in their language affinity towards Spanish but not limited to it.

The only difference between the participants in this pattern and pattern 3 (balanced levels of emotions) is that they do not feel confident enough to admit their English is good enough. It is beyond the scope of the study to determine their academic level of English. One fact in particular that was interesting from this group was that these participants at times speak in Spanish with their significant others, as opposed to always speaking in English. The participants in this pattern appeared to surround themselves with Spanish to feel comfortable and safe. This and the other factors mentioned could be connected to the higher levels of emotion chosen by these participants in reaction to Spanish words.

### **5.2.2 Pattern 2**

The three participants that fell into this pattern indicated a higher level of emotion in reaction to English words compared to Spanish words. They share the following factors: 1) did not take Spanish

classes in Canada; 2) prefer to speak in English for all occasions; 3) have a significant other who speaks English; 4) do not use Spanish in their day to day lives; 5) do not speak in Spanish and maintain their heritage culture in their household; 6) prefer to forget childhood memories from the heritage country and keep them in the past; 7) born in Canada and did receive enough incentive to learn Spanish at home.

Unique to this pattern, particularly in comparison to Pattern 1, is the preference to speak in English and language dominance in English. The participants in this pattern associate some memories with Spanish, but because their heritage language is not being used frequently, it is not as prevalent in their lives. This does not mean the participants cannot speak Spanish, but more so that their Spanish has been left at the child/ adolescent level from when they first arrived in Canada at a young age. Their Spanish did not have a chance to grow. English took its place and eventually quite possibly became the only language in their mind. Upon interviewing these participants, it was evident that they felt a lack of vocabulary to express themselves in Spanish. They do not necessarily use English because they feel more attached to their memories in Canada, but rather the memories and emotions on occasion were attached to their cultural memories.

They may hold memories, some more vivid than others, in Spanish, but they do not feel strongly attached to the Spanish words. They also expressed that, whenever someone talks to them in Spanish, they have to ask the person to repeat themselves because they feel concerned that they may not have heard the question properly. This situation is similar to Pattern 1 that showed higher levels of emotions in reaction to Spanish. A different factor is that Pattern 1 participants speak Spanish very well, while Pattern 2 participants lack the confidence to do so. In this pattern, it is not a lack of confidence speaking Spanish; it is more a lack of vocabulary and fear that limits these participants' use of Spanish. Therefore, these participants have found refuge in English and have developed a sense of comfort with it.



### 5.2.3 Pattern 3

The participants in this pattern displayed similar levels of emotions in reactions to words in both English and Spanish. These seven participants showed the following similar features: 1) had either attended a bilingual school in primary or secondary school; 2) took optional Spanish courses in university; 3) majored in Spanish; 4) work in a bilingual environment as teachers. These features all contributed to the maintenance of Spanish at a fairly high level. In fact, two of the seven participants were more dominant in Spanish than English. In addition, all 7 participants in this pattern exhibited high levels of English. The participants also received the support and encouragement of parents to maintain their heritage language and culture both in their households and beyond. Their parents encouraged them to take Spanish courses and use their heritage language to achieve their future goals. According to Guardado (2018), parents who maintain the language and heritage culture at home help maintain the heritage language of their children. The participants in this pattern appear to have similar experiences for both languages because they learned both languages at the same time instead of learning one first and then the other. Even if at the beginning one language had an advantage over the other, as time went by, both languages levelled up to each other, and now as adults, the participants use both back and forth with what was reported as no issue or difficulty whatsoever. These participants are comfortable with both languages. They do not second guess themselves. They show pride and a sense of accomplishment of maintaining their heritage language near the same level as English. The majority had majored or minored in Spanish, and furthermore, most of them are currently teachers in local Spanish-bilingual programs.

### 5.3 Differing levels of emotions for words in each language

The majority of the participants, 72% (18/25), fell into Pattern 1 or 2, which meant that they exhibited different levels of emotions in reaction to Spanish words compared to English words. Previous

research offers insights into these patterns. Altarriba and Basnight-Brown (2011) determined that both negative and positive emotion-label and emotion-laden words resulted in different cognitive reactions in each language and concluded that emotions are felt differently in each language. While the task administered in Altarriba and Basnight-Brown (2011) was not the same as the one in the current study, there are some similarities in the findings, particularly that words in different languages evoked different levels of emotions in the current study and different emotional responses in their study.

Vélez-Urbe and Rosselli (2019) also determined that their bilingual participants exhibited different emotions in their respective languages. They believe that a possible effect that could have affected stronger ratings in English than Spanish was that these participants were more dominant in English than Spanish; even though Spanish had been their first language, their schooling was completed in English. Vélez-Urbe and Rosselli (2019) also determined that emotional levels differed in each language, aligning with the participants in Patterns 1 and 2 of the current study. Vélez-Urbe and Rosselli (2019) stated that it was possible for language dominance to have had an influence on their results. This occurred in the current study with 9 of the participants in Pattern 1 and all three of the participants in Pattern 3 who were more dominant in English than Spanish. The difference is that in the current study, for Pattern 1, language dominance in English was connected to higher levels of emotions in reaction to Spanish words, and for Pattern 2, this same dominance in English was connected to higher levels of emotions in reaction to English words.

Similarly, Bakic (2017) also found that bilinguals use different languages to express emotions. She determined that the age of arrival played a large role as to why participants showed different emotions for each language. Since the participants in her study were exposed to their two languages at an early age, they did not have any issues expressing their emotions or dealing with cognitive processes in either of their languages. A similar situation occurred in the current study; the age of arrival to Canada

and English acquisition appeared to be connected to levels of emotions since participants who arrived as older children or young adolescents displayed higher levels of emotions in reaction to Spanish words. Moreover, Bakic (2017) determined that other factors (context of acquisition, personal history of traumatic stress and violence, language dominance and word type) influenced the emotions in the language it occurred. This was also the case with the current study, where differing levels of emotions seemed to be influenced by a variety of factors that included age of arrival and acquisition of English in addition to life experiences and trajectories surrounding the use and maintenance of Spanish. Another factor that Bakic (2017) noticed was that participants showed different emotions in their respective language because they belonged to a particular culture or more than one culture at the same time, which contributed to the formation and expression of their overall identity of the bilinguals. This was also the case of this study. Whether participants felt connected or not to their heritage culture appeared to be linked to their levels of emotions in reaction to words in Spanish along with the use of their heritage language. In addition, a few of the participants in the current study took Spanish courses to maintain and improve their academic Spanish and are also employed in professions where they use both languages regularly.

#### **5.4 Mental representations of Spanish-English word pairs**

According to Pavlenko (2008), emotion vocabulary is remembered differently in the mental lexicon, which was the case in the current study for majority of the participants with most of the word pairs. Half of the participants (13/25) in the current study exhibited different mental representations for each word in the word pair (e.g., ‘house’ evoked a different response than ‘casa’). An additional 7 participants described different mental representations for all but one word pairs. Together this accounts for 80% of the participants. Of the remaining five participants, three described different mental images for 7 of the 10-word pairs, one did for 6 of the 10-word pairs, and one did for 2 of the 10-word pairs.

Therefore, these participants had similar images for some of the word pairs, except one participant who only had differing images for 2 of the 10-word pairs. Age of arrival appeared to be a factor for those born in Canada (who displayed similar mental images) or who came to Canada after age 6 (who had different mental images). Around half of the participants who came between ages 3 and 6 displayed similar mental representations and the other half displayed different ones, perhaps due to other factors, such as daily use of Spanish. Language dominance does not appear to play a role since participants with differing mental images reported dominance in Spanish or English. Another factor that could also have contributed is low self-esteem in either language the participants spoke. As Sanchez- Muñoz (2015) states, linguistic insecurity in heritage speakers makes them feel somewhat negative or ashamed of their heritage language (Spanish) or their second language (English) even if they are literate in both languages if they possess linguistic insecurity, they will rate themselves lower in terms of their literacy in both languages. Perhaps that was the case of participant 20, who had the lowest number of different images (only two word pairs resulted in differing images), even though he was more dominant toward Spanish, he prefers to speak in English, which for him was his language of comfort language rather than the heritage language (Spanish) in which he possessed low self-confidence in the heritage language.

Acosta (2013) states that the degree of attrition (loss of the mother tongue) of the heritage language increases with age and is usually directly proportional to the age of the beginning of bilingualism and the age of continued exposure to the dominant language of society. Silva-Corvalán (2018) confirms that reduced exposure and production of a minority language in a simultaneous bilingual will reveal that those who arrive at age 6 or younger will present an incomplete acquisition of heritage language. A similar pattern is found with evoking memories from emotion-neutral words in English and Spanish. The later the age of arrival, the more different the memory is in response to the English word compared to the Spanish word. In the current, the majority of the participants arrived in

Canada between ages 7 and 12. These participants had more memories related to Spanish due to having lived in Spanish-speaking countries longer than participants who arrived between ages 3 and 6. Therefore, the participants who arrived later (between ages 7 and 12 or after 12) primarily displayed different mental images for the majority of the word pairs. The participants who were born in Canada learned both languages simultaneously, and this could account for why they experienced similar levels of emotions with word pairs, whether the word was in Spanish or English and similar mental images for each word pair.

Pérez-Luzardo Díaz and Schmidt (2016) determined that effectively all words evoked different mental images and degrees of emotionality in different languages in their participants who were bilinguals living in Spain. The only exceptions found were if the words evoked were relevant in the participants' lives, not relevant or no images at all in their respective languages. Therefore, they demonstrated that bilinguals have two cognitive subsystems for each language, and they associated their experiences to the language in the linguistic context in which it occurred. Compared to the current study, I was also able to determine that the majority of participants displayed different mental images for their respective languages, with one exception (participant 20). A different factor I found was that not all the words presented different mental images, and there was a small group of participants who presented similar mental images. This study was also able to determine that it was not only the experience that determines the different or same mental images in the language it happened in, but also the age and exposure to the heritage language played a large role in why some mental images were the same. But it is important to understand that exhibiting similar mental images mainly happened to those who came to Canada younger than six years old. Therefore, my findings mostly align with Pérez-Luzardo Díaz and Schmidt (2016), but not always in the case of the participants previously mentioned with the same mental image for each word pairs.

In the next section, the conclusions that can be drawn from this study are presented. The findings and limitations of the study are discussed. Followed by some future directions and offer of implications for heritage speakers of Spanish and researchers of this population.

## **Chapter 6 Conclusions**

### **6.1 Synthesis and summary of findings**

Based on the data collected and the results found, there are two main conclusions. One is that heritage speakers of Spanish in Western Canada carry various levels of emotion for their heritage language compared to English. While the majority (60%) exhibited stronger levels of emotions in reaction to Spanish words compared to English words, 12% of the participants exhibited stronger levels of emotions in reaction to English words compared to Spanish words, and 28% of the participants exhibited similar levels of emotions in reaction to both words. The second main conclusion is that the majority of the heritage speakers in the study exhibited different mental images for word pairs, noting a connection to their heritage culture for the Spanish word and describing an experience related to Canada or something from Canadian culture for the English word. Additionally, to my knowledge, no previous studies have investigated levels of emotions in heritage speakers nor the mental images that are evoked by word pairs.

In his final chapter, future research directions will be discussed first. Next, limitations faced when conducting the study will be described. This is followed by the recommendations and implications found for heritage speakers, teachers, and parents of heritage speakers. This chapter ends with a final summary of the study and concluding remarks.

### **6.2 Future Research Directions**

This research opens the door for many possible future studies. First, a future study could focus on heritage speakers of Mexican descent since they form the largest population of heritage speakers in both Calgary and Canada. Through the interviews conducted for this study, I noticed that the 9 Mexican heritage speakers in the study were also the heritage speaker who most maintained their heritage culture

while living in Canada. The remaining 16 participants from other countries tended to maintain their heritage culture and mixed it with Canadian culture. A future study that only focuses on heritage speakers of Mexican descent could investigate the factors that contribute to language affinity within this population.

Another future study could change how the word description task was delivered by using images instead of words to determine the reaction of heritage speakers when asked to describe what they feel. For example, participants would see a picture of a house and would have to answer first in English and then in Spanish. Ervin-Tripp (1973) conducted a study known as Thematic Apperception Test, which is a test that involves describing ambiguous scenes in a picture. This researcher found that when bilinguals described certain types of pictures, they produced different answers in their respective languages. An example was a Japanese American who was shown a picture of a girl sitting on the floor with her back turned and head resting on a couch. The participant responded in Japanese that that woman looked like she had lost her fiancé and was about to commit suicide. In English, the participant answered that she saw a girl finishing a project for her sewing classes. The fact that the same picture evoked different responses in different languages for the same individual leads me to believe that a future study involving heritage learners of Spanish might also show similar results, depending on the background of the participants. Heritage speakers' responses may not be as drastic as the response from the Japanese woman, but it could remind the heritage speakers of their childhoods both in Canada and if relevant in a Spanish-speaking country and indicate differences in levels of emotions in each language.

Another possibility for a future study is to investigate the age of arrival of the participants in more detail. The current study primarily included participants who arrived between the ages of 3-6 or 7-12. Including more participants who arrived as teenagers or adults and those born in Canada could lead to different findings regarding language affinity.



An additional future study could include a survey to measure personality traits, to determine the effects of, for example, extroversion or introversion on the ability to express memories in either language, as well as to determine linguistic confidence in both languages and its relationship to these personality traits. Both topics were prevalent in the current study and investigating them in more detail could lead to more robust findings. Additionally, measuring to what extent personality traits has on language achievement could also be included in the study.

Lastly, I also believe that any future study could include an investigation of the role of the socioeconomic background of the participant, including that of their parent(s) in their heritage country and also in Canada. This would be useful to determine the specifics about their education level, particularly in their home country, as well as their access to English. Also, knowing what their socioeconomic background is can determine if parents or themselves were able to provide enough resources to maintain and/or develop their Spanish. This would include the ability to travel to Spanish-speaking places, the cost associated with attending private Spanish classes, and the time the parents spent with their children speaking in Spanish to build a relationship and implicitly teach them Spanish.

### **6.3 Limitations**

The following are a description of the limitations that occurred while conducting this study. First, despite of trying to control for dialectal differences, some issues arose in the word description task. Because the participants or their families were from several different Spanish-speaking countries, not all the varieties or dialects spoken in those places and by their parents and themselves were present. This only happened a few times with a few participants. To demonstrate this, when I asked a participant to describe the word ‘chaqueta’ (jacket), the participant said they do not use that word. I asked what word she uses, and she explained that she uses the word ‘campera’ (jacket). I then asked her if I were to say ‘campera’ to tell me how she would feel. It is important to understand that Spanish can vary from region

to region, and I think studying heritage speakers from one specific country would help the study have a stronger understanding of that specific culture rather than partially understanding several at once.

The second limitation is with regard to the background of the participants. I was not able to determine in some cases why the parents of the participants did not offer support in their children's Spanish journey. It could have been due to a variety of reasons, such as the parents being employed in multiple jobs in Canada or back home in a Spanish-speaking country and not having enough time or funds to support Spanish in the home. Additionally, it is important to know the type of schooling the participants and possibly their parents received, as not all participants mentioned this. For the few that did, some had a clear advantage of attending private schools in their heritage country, resulting in a smoother transition to Canada, having a higher command of English than others upon arrival to Canada.

The third limitation is around the question on the survey about their personality. It was open-ended and optional, but there appeared to be a connection between extroverted participants providing more information than introverted ones. This could have been why a few of the interviews were shorter than the rest because some were willing to provide more background and explanations to answer the questions, and others would only provide short answers. This personality aspect could have been explored a bit further.

The fourth limitation is that the participant pool was limited to only 25 heritage speakers, and all had varying experiences and backgrounds. More participants could have resulted in more robust patterns. All of the participants went to university, so including participants who did not could result in different findings. Additionally, all participants were around the same age with only a few exceptions, and all were roughly from the same generation of heritage speakers. A more diverse pool of participants could display a richer image.

The final limitation is the medium in which the tasks were conducted. Because I was recording and talking to participants over Zoom, it was difficult for the participants to warm up to the environment. It was nearly impossible to read their body movements to help interpret what they were saying. For example, body movements and facial expressions could have helped determine how nervous or anxious the participants were and allowed me to address this and possibly allow the participants to expand more on their answers. Instead, I asked more follow-up questions than anticipated to ensure I understood what they were saying.

#### **6.4 Recommendations and Implications**

This study offers implications for various groups of people, including heritage speakers, parents and teachers of heritage speakers. As shown in this study, heritage speakers often exhibit a connection to their heritage culture via exhibiting memories related to their heritage countries. This demonstrates that even as adults, they still have a large part of their heritage culture in them. The current study shows that heritage speakers could potentially benefit from understanding that even though they do not always feel a sense of belonging to Canada or to their heritage culture, they still carry vivid memories that demonstrate a connection to their heritage culture. In addition, the majority of the participants still carry strong emotions and connections to Spanish, whether they speak it daily or not.

One implication for both teachers and parents of heritage speakers is to provide support by using the BLP survey and word description task in class and/or at home. The BLP survey measures the language preferences of heritage speakers. Knowing these preferences could potentially help teachers and parents understand heritage speakers and build a stronger connection with them. It could also enable them to use more personal materials that are more approachable and better suited to their learning. The word description task in the classroom and at home could also be used as an engaging activity for heritage learners. Some participants reported that they found this task therapeutic because they could

freely share their memories related to their heritage language and culture. The word description task could also allow heritage speakers to transition from a deficiency mindset (heritage language as a deficiency) to a more positive one that shows them what they do remember and what they can do with their language in terms of emotions. Most participants were interested to learn that certain words evoked memories they did not know they had. The word description task does not need to be limited to only heritage speakers. L2 learners of Spanish may also benefit from completing a similar task. Therefore, teachers or parents, if they so choose, can compare the learners to the heritage speakers to determine how they differ in terms of levels of emotions in reaction to emotion-neutral words in both Spanish and English.

Another implication is that parents and teachers of heritage learners can work together to create a workshop to educate others on how important it is to connect to one's emotions in all of their languages. As Dewaele (2010) states, the vocabulary of emotions and emotion scripts differs from language to language and culture to culture. Therefore, focusing on the differences and similarities between the L1 and L2 could strengthen learning in both languages. According to Dewaele (2010), language teachers need to be aware that the cultural and typological distance between the learner's L1(s) and the L2 is a significant obstacle to mastering emotional speech. Teachers could benefit from knowing the cultural and emotional obstacles that heritage speakers can face. In addition, parents of heritage speakers also could be made aware how to provide support to maintain or expand their children's language skills. This could be done by implementing a task similar to the word description task and the BLP to have more knowledge on the levels of emotions possessed by their children and their language dominance. This could help heritage speakers connect more with their heritage language and culture.

## 6.5 Final summary

Emotions are highly connected to languages, as evidenced in this study. The 25 participants in this study reacted in different ways to words heard in English and Spanish. While majority of the participants exhibited higher levels of emotions in reaction to words in Spanish compared to English, the rest of the participants either exhibited higher levels of emotions in reaction to words in English compared to Spanish or similar levels of emotions. The majority of the participants also exhibited different mental representations for most word pairs. For example, the image that came to mind for 'house' was different than 'casa' (house). Reasons for these differences were explained and included age of arrival, language dominance, exposure to the heritage language, and cultural identity. In conclusion, heritage speakers in the current study exhibited different levels of language affinity to their heritage language (Spanish) and the dominant language (English).

## References

- Abdi, K. (2009). *Spanish heritage language learners in Canadian high school Spanish classes: Negotiating ethnolinguistic identities and ideologies*. (Unpublished master's thesis). University of British Columbia, Vancouver, Canada.  
<https://open.library.ubc.ca/collections/ubctheses/24/items/1.0067630>
- Abdi, K. (2011). 'She really only speaks English': Positioning, language ideology, and heritage language learners. *The Canadian Modern Language Review*, 67(2), 161-190.  
<https://doi.org/10.3138/cmlr.67.2.161>
- Acosta, Á. (2013). The acquisition and linguistic development of heritage speakers of Spanish. *Nebrija Magazine of Applied Linguistics*, 13, 1-17.
- Albuja, Analia F, Gaither, Sarah E, Sanchez, Diana T, Straka, Brenda, & Cipollina, Rebecca. (2019). Psychophysiological Stress Responses to Bicultural and Biracial Identity Denial. *Journal of Social Issues*, 75(4), 1165-1191. <https://doi.org/10.1111/josi.12347>
- Alarcon, Irma. (2010). Advanced Heritage Learners of Spanish: A Sociolinguistic Profile for Pedagogical Purposes. *Foreign Language Annals*, 43(2), 269-288. <https://doi-org.ezproxy.lib.ucalgary.ca/10.1111/j.1944-9720.2010.01078.x>
- Altarriba, J., & Bauer, L. M. (2004). The distinctiveness of emotion concepts: A comparison between emotion, abstract, and concrete words. *The American Journal of Psychology*, 117(3), 389–410. <https://doi.org/10.2307/4149007>
- Altarriba, J., & Basnight-Brown, D. M. (2011). The representation of emotion vs. emotion-laden words in English and Spanish in the Affective Simon Task. *International Journal of Bilingualism*, 15(3), 310–328. <https://doi.org/10.1177/1367006910379261>

- Amezcuca, A. (2014). *Creating agency for heritage language speakers in Chicana/o studies* (Unpublished master's thesis). University of California, Los Angeles.
- Appelt, L. (2017). Public Spanish Bilingual Schools in Calgary, Alberta: A Case Study of Parent and Student Perspectives and Expectations. (Unpublished doctoral dissertation). University of Calgary, Calgary, Canada. <https://prism.ucalgary.ca/handle/11023/4012>
- Armony, V. (2014). Latin American Communities in Canada: Trends in Diversity and Integration. *Canadian Ethnic Studies* 46(3), 7-34. <https://doi.org/10.1353/ces.2014.0043>
- Oh, Janet S, & Au, Terry Kit-fong. (2005). Learning Spanish as a Heritage Language: The Role of Sociocultural Background Variables. *Language, Culture, and Curriculum*, 18(3), 229-241. <https://doi.org/10.1080/07908310508668744>
- Ayçiçeği-Dinn, A., & Caldwell-Harris, C. (2009). Emotion-memory effects in bilingual speakers: A levels-of-processing approach. *Bilingualism: Language and Cognition*, 12(3), 291-303. <https://doi.org/10.1017/S1366728909990125>
- Bakic, A. (2017). The relationship between bilingualism and identity in expressing emotions and thoughts, *Ikala*, 22(1). <https://doi.org/10.17533/udea.ikala.v22n01a03>
- Birdsong, D., Gertken, L.M., & Amengual, M. (2012). *Bilingual Language Profile: An Easy-to-Use Instrument to Assess Bilingualism*. COERLL, University of Texas at Austin. <https://sites.la.utexas.edu/bilingual/>
- Benet-Martínez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating Biculturalism: Cultural Frame Switching in Biculturals with Oppositional Versus Compatible Cultural Identities. *Journal of Cross-Cultural Psychology*, 33(5), 492–516. <https://doi.org/10.1177/0022022102033005005>

- Benmamoun, E., Montrul, S., & Polinsky, M. (2010). White paper: Prolegomena to Heritage Linguistics. University of Illinois at Urbana Champaign and Harvard University.  
<https://www.semanticscholar.org/paper/Prolegomena-to-Heritage-Linguistics-Benmamoun-Montrul/4fe2a88fd8a54f1f0923e9a1b512a71366a8fb3e#citing-papers>
- Repke, Lydia, & Benet-Martínez, Verónica. (2017). Conceptualizing the dynamics between bicultural identification and personal social networks. *Frontiers in Psychology*, 8, 469.  
<https://doi.org/10.3389/fpsyg.2017.00469>
- Beaudrie, Sara, Ducar, Cynthia, & Relaño-Pastor, Ana María. (2009). Curricular perspectives in the heritage language context: Assessing culture and identity. *Language, Culture, and Curriculum*, 22(2), 157-174. <https://doi.org/10.1080/07908310903067628>
- Campanaro, T. G. (2013). Spanish Heritage speakers and second language learners in mixed classrooms: Perceptions of students and instructors. (Unpublished master's thesis). University of Alberta, Edmonton, Canada. <https://doi.org/10.7939/R3ZS2KM0B>
- Center for Advanced Research on Language Acquisition. (n.d.). *What is culture?*  
<https://carla.umn.edu/culture/definitions.html>
- Dabrowska, E. (2012). Different speakers, different grammars: Individual differences in native language attainment. *Linguistic Approaches to Bilingualism*, 2 (3), 219-253. <https://doi.org/10.1075/lab.2.3.01dab>
- Dewaele, J.M. y Pavlenko, A. (2001-2003). *Web questionnaire Bilingualism and Emotions*. University of London. [https://www.academia.edu/2134800/Web\\_questionnaire\\_bilingualism\\_and\\_emotions](https://www.academia.edu/2134800/Web_questionnaire_bilingualism_and_emotions)
- Dewaele, J. (2010). *Emotions in multiple languages*. Basingstoke; New York: Palgrave Macmillan.



- Dewaele, J. (2015). From obscure echo to language of the heart: Multilingual' language choices for (emotional) inner speech. *Journal of Pragmatics*, 87, 1-17.  
<https://doi.org/10.1016/j.pragma.2015.06.014>
- Dörnyei, Z. (2007). *Research methods in applied linguistics: quantitative, qualitative, and mixed methodologies*. Oxford University Press.
- Dubois, J. (1992). *Diccionario de lingüística*. [Linguistic Dictionary]. Madrid: Alianza
- Ervin-Tripp, S. (1973). *Language Acquisition and Communicative Choice*. Stanford, Calif: Stanford University Press.
- Gertken, L.M., Amengual, M., & Birdsong, D. (2014). Assessing language dominance with the Bilingual Language Profile. In P. Leclercq, A. Edmonds & H. Hilton (Eds.), *Measuring L2 proficiency: Perspectives from SLA*, 208-225. Website: Bristol: Multilingual Matters.
- Grosjean, François. (1998). Transfer and language mode. *Bilingualism (Cambridge, England)*, 1(3), 175–176. <https://doi.org/10.1017/S1366728998000285>
- Grosjean, F., Grosjean, F., & Grosjean, F. (2010). *Bilingual: Life and reality*. ProQuest eBook Central  
<https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>
- Guardado, M. (2002). Loss and maintenance of first language skills: Case studies of Hispanic families in Vancouver. *Canadian Modern Language Review*, 58 (3), 341-363.
- Guardado, M. (2006). Socializing Hispanic children into multidimensional identities.  
 Paper presented at the American Association for Applied Linguistics, Montreal, Quebec, Canada.
- Guardado, M. (2018). Spanish as a minority/heritage language in Canada and the UK. In K. Potowski (Ed.), *The routledge handbook of Spanish as a heritage/minority language*. New York, NY:

Routledge, 537-554. ProQuest Ebook Central <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>

Hamers, J., & Blanc, M. (2000). *Bilinguality and Bilingualism*. Cambridge: Cambridge University Press.

<https://doi-org.ezproxy.lib.ucalgary.ca/10.1017/CBO9780511605796>

Harkins, Wierzbicka, Harkins, Jean, & Wierzbicka, Anna. (2001). *Emotions in crosslinguistic perspective* (Cognitive linguistics research; 17). Berlin; New York: Mouton de Gruyter.

Harris C. L., Gleason J. B., & Ayçiçeği A. (2006). When is a first language more emotional?

Psychophysiological evidence from bilingual speakers. *Bilingual Minds: Emotional Experience, Expression and Representation*. Clevedon, ed. Pavlenko A., editor, 257-283.

Horenstein, V., & Papouchis, Nicholas. (2010). Bilingualism and Emotion: Do Bilinguals Experience Emotions Differently in Their First and Second Languages? ProQuest Dissertations and Theses.

Ivaz, L., Costa, A., & Duñabeitia, J. (2016). The emotional impact of being myself: Emotions and foreign-language processing. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 42(3), 489-496.

Kroeber, A.L., & Kluckhohn, C. (1952). *Culture: A critical review of concepts and definitions*. Harvard University Peabody Museum of American Archeology and Ethnology Papers 47. Retrieved from

<https://catalog.hathitrust.org/Record/007127162/Home>

Leeman, Jennifer. (2015). Heritage Language Education and Identity in the United States. *Annual Review of Applied Linguistics*, 35, 100-119. <https://doi.org/10.1017/S0267190514000245>

Lindquist, K. A., Gendron, M., & Satpute, A. B. (2016). Language and emotion: Putting words into feelings and feelings into words. In L. F. Barrett, M. Lewis & J. M. Haviland-Jones (Eds.),

*Handbook of emotions*, (4),579–594. New York, NY: Guilford Press. ProQuest Ebook Central, <http://ebookcentral.proquest.com/lib/ucalgary-ebooks/detail.action?docID=4406910>.

[Created from ucalgary-ebooks on 2021-06-17 20:20:49.](#)

Loureiro-Rodríguez, V. (2013). Meaningful Writing in the Heritage Language Class: A Case Study of Heritage Learners of Spanish in Canada. *L2 journal*, 5(1), 43-5.

Loureiro-Rodriguez, V. & Moyna, M. (2015) “Is that what I sound like when I speak?”: Attitudes towards Spanish, English, and code-switching in two Texas border towns. *Spanish in Context*, 12(2), 177-198. <https://doi.org/10.1075/sic.12.2.01ran> Also available on ResearchGate: [https://www.researchgate.net/publication/282306422\\_Is\\_that\\_what\\_I\\_sound\\_like\\_when\\_I\\_speak\\_Attitudes\\_towards\\_Spanish\\_English\\_and\\_code-switching\\_in\\_two\\_Texas\\_border\\_towns](https://www.researchgate.net/publication/282306422_Is_that_what_I_sound_like_when_I_speak_Attitudes_towards_Spanish_English_and_code-switching_in_two_Texas_border_towns)

Lüdtke, Lüdtke, Ulrike, & ProQuest. (2015). *Emotion in language: Theory - research – application*, 10. ProQuest Ebook Central <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>

Lynch, A. (2012). ‘Key concepts for theorizing Spanish as a heritage language’ in Beaudrie S., Fairclough M. (Eds): *Spanish as a Heritage Language in the United States: The State of the Field*. Georgetown University Press, pp. 79–100. ProQuest Ebook Central <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>

Lynch, Andrew. (2018) A Historical View of US Latinidad and Spanish as Heritage Language. In K. Potowski (Ed), *The Routledge Handbook of Spanish as a Heritage Language*. 17-35. ProQuest Ebook Central <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>

Majid, Asifa. (2012). Current emotion research in the language sciences. *Emotion Review* 4, (4) 1–12.

- Marian V., Kaushanskaya M. (2008). Words, feelings, and bilingualism: cross-linguistic differences in emotionality of autobiographical memories. *The Mental Lexicon*, 3 (1), 72-90.  
<https://doi.org/10.1075/ml.3.1.06mar>
- Matsumoto, D., Anguas-Wong, A. M., & Martinez, E. (2008). Priming effects of Language on Emotion Judgments in spanish- english bilinguals. *Journal of Cross-Cultural Psychology*, 39(3), 335-42.  
<https://doi.org/10.1177/0022022108315489>
- Meyerhoff, M. (2019). *Introducing sociolinguistics*. London: Routledge
- Montrul, S. (2015a). Dominance and proficiency in early and late bilingualism. In C. Silva-Corvalán & J. Treffers-Daller (Eds.), *Language Dominance in Bilinguals: Issues of Measurement and Operationalization*, 15-35. Cambridge: Cambridge University Press. <https://doi-org.ezproxy.lib.ucalgary.ca/10.1017/CBO9781107375345.002>
- Montrul, S. (2015b). *The Acquisition of Heritage Languages*. Cambridge: Cambridge University Press.  
<https://doi.org/10.1017/CBO9781139030502>
- Nakhaie, M.R. (2006). Contemporary realities and future visions: Enhancing multiculturalism in Canada. *Canadian ethnic studies*, 38 (1),149-158.
- Pacini-Ketchabaw, V., Bernhard, J. K., & Freire, M. (2001). Struggling to preserve home language: The experiences of Latino students and families in the Canadian school system. *Bilingual Research Journal*, 25(1 and 2).
- Pavlenko, A. (2002). Bilingualism and emotions. *Multilingua* 21(1), 45-78. Retrieved from  
<http://www.anetapavlenko.com/bilingemo.html>
- Pavlenko, A. (2005). *Emotions and Multilingualism*. Cambridge: Cambridge University Press.  
<https://doi-org.ezproxy.lib.ucalgary.ca/10.1017/CBO9780511584305>

- Pavlenko, A. (2008). Emotion and emotion-laden words in the bilingual lexicon. *Bilingualism: Language & Cognition*, 11(2) 147-164. <https://doi.org/10.1017/S1366728908003283>
- Pavlenko, A. (2012). Affective processing in bilingual speakers: Disembodied cognition? *International Journal of Psychology*, 47 (6), 405-428. <https://doi.org/10.1080/00207594.2012.743665>
- Pérez Porto, J. y Gardey, A. (2015). Definición de afinidad [Definition of affinity]. *Definicion.de*. <https://definicion.de/afinidad/>
- Pérez-Luzardo Díaz, J. & Schmidt, A. (2016). Bilingualism and identity: A case study on the relationship between languages and feelings. *Journal of Applied Linguistics and Languages*, University of Las Palmas de Gran Canaria, 11, 51-59. <https://doi.org/10.4995/rlyla.2016.4424>
- Potowski, K. (Ed.). (2018). The routledge handbook of spanish as a heritage language. Retrieved from <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>
- Quiñones-Camacho, L., Shih, E., Savage, S., Lamar Prieto, C., & Davis, E. (2019). Regulating emotions in two languages: How do emotion regulation strategies relate to physiological reactivity in emotional contexts? *International Journal of Bilingualism*, 23(5), 1106-1120.
- Reznicek-Parrado, L. M. (2013). *Heritage speaker pedagogy: implications for instructor training at the university level* (Master's dissertation). Available from the University of Nebraska Lincoln.
- Resnik, P. (2018). Multilinguals' use of L1 and L2 inner speech. *International Journal of Bilingual Education and Bilingualism*, 1-19.
- Rieder-Bünemann A. (2012) Second Language Learning. In: Seel N.M. (Eds.) *Encyclopedia of the Sciences of Learning*. Springer, Boston, MA. [https://doi.org/10.1007/978-1-4419-1428-6\\_826](https://doi.org/10.1007/978-1-4419-1428-6_826)
- Ruiz, W., (2013). Latin American Canadians. *In The Canadian Encyclopedia*. Retrieved from <https://www.thecanadianencyclopedia.ca/en/article/latin-americans>

- Sánchez-Muñoz, A. (2015). Heritage language healing? Learners' attitudes and damage control in a heritage language classroom. In Cabo & Pascual, D. (Eds.), *Advances in spanish as a heritage language*, 49. <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>
- Silva-Corvalán, C. (2018) Simultaneous Bilingualism: Early Developments, Incomplete Later Outcomes? *The International Journal of Bilingualism: Cross-disciplinary, Cross-linguistic Studies of Language Behavior*, 22.5, 497-512.
- Smith, A. G. (Alfred Goud). (1966). *Communication and culture: readings in the codes of human interaction*. New York: Holt, Rinehart and Winston.
- Statistics Canada, (2016). *2016 Census: Linguistic diversity and multilingualism in Canadian homes*. Retrieved from <https://www12.statcan.gc.ca/census-recensement/2016/as-sa/98-200-x/2016010/98-200-x2016010-eng.cfm>
- Statistics Canada, (2017). *2016 census: Focus on Geography Series*. Statistics Canada Catalogue no. 98-404-X2016001. Retrieved from <https://www12.statcan.gc.ca/censusrecensement/2016/as-sa/fogs-spg/Facts-PR-Eng.cfm?TOPIC=5&LANG=Eng&GK=PR&GC=48>
- Turcotte, M. (2006). Passing on the Ancestral Language. *Canadian Social Trends*, 20-26. Issue#2005004. <https://www150.statcan.gc.ca/n1/en/catalogue/11-008-X20050049127>
- Treffers-Daller, J. (2011). Operationalizing and measuring language dominance. *International Journal of Bilingualism*, 15(2), 147–163. <https://doi.org/10.1177/1367006910381186>
- Tseng, Amelia. (2021). 'Que barbaridad, son latinos y deberian saber espanol primero': Language Ideology, Agency, and Heritage Language Insecurity across Immigrant Generations. *Applied Linguistics*, 42(1), 113-135. <https://doi.org/10.1093/applin/amaa004>

- Valdés, G. (2005). Bilingualism, Heritage Learners, and SLA Research: Opportunities Lost or Seized? *Modern Language Journal*, 89(3), pp. 410-426. <https://doi.org/10.1111/j.1540-4781.2005.00314.x>
- Vélez-Urbe, I., & Rosselli, M. (2019). The auditory and visual appraisal of emotion-related words in Spanish–English bilinguals. *Bilingualism*, 22(1), 30-46.
- Wang, C., & Winstead, L. (2016). *Handbook of Research on Foreign Language Education in the Digital Age*. Hershey, PA: IGI Global. <https://ezproxy.lib.ucalgary.ca/login?url=https://www-proquest-com.ezproxy.lib.ucalgary.ca/other-sources/handbook-research-on-foreign-language-education/docview/1825981326/se-2?accountid=9838>
- Witte, H. (2008). *Traducción y percepción intercultural [Intercultural translation and perception]*. Granada: Comares.
- Wierzbicka, Ana. (1997). *Understanding cultures through their key words: English, Russian, polish, German, and Japanese*. ProQuest Ebook Central <https://ebookcentral-proquest-com.ezproxy.lib.ucalgary.ca>
- Zhang, J., Wu, C., Meng, Y., & Yuan, Z. (2017). Different neural correlates of emotion-label words and emotion-laden words: An ERP study. *Frontiers in Human Neuroscience*, 11, 455. <https://doi.org/10.3389/fnhum.2017.00455>
- Zhang, J., Teo, T., & Wu, C. (2019). Emotion Words Modulate Early Conflict Processing in a Flanker Task: Differentiating Emotion-Label Words and Emotion-Laden Words in Second Language. *Language and Speech*, 62(4), 641–651. <https://doi.org/10.1177/0023830918807509>

## APPENDIX A: Consent Form



UNIVERSITY OF  
CALGARY

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**Name of Researcher, Faculty, Department, Telephone & Email:**

Nicole Puccinelli,  
Faculty of Arts, School of Languages, Linguistics, Literatures and Cultures,

**Supervisor:**

Dr. Angela George,  
Faculty of Arts, School of Languages, Linguistics, Literatures and Cultures, Spanish Program,

**Title of Project:**

Language affinity of bilingual speakers

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This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

Participation is entirely voluntary and confidential. You are free to discontinue participation one week prior to a minimum of three days' notice.

**Purpose of the Study**

*The purpose of this study is to determine the extent to which Spanish/English bilinguals in Canada prefer to express themselves in one language versus another.*

**What Will I Be Asked To Do?**

You will be asked to participate in a 25-minute virtual interview and a 10-minute word description task. In the interview you will be asked about your educational, cultural, immigration and linguistic background. You will also be asked about your experiences and challenges you came across with your languages and as immigrants how you overcame those barriers. On the word description task, you will hear a series of words and respond to questions. The interview and word description task will be audio or video recorded upon your consent so that I can use the transcripts from the interview and tasks to explain linguistic theories. If you feel uncomfortable responding to any questions about immigration experiences, linguistic discrimination or racism that make you upset feel free to not answer the



questions. Participation in this study is entirely voluntary, you may refuse to participate altogether, or you may refuse to participate in any part of the study, including declining to answer any and all questions, and you may withdraw from the study one week after completing the interview and word description task. If you wish to withdraw from the research, you can email Nicole Puccinelli or Angela George.

### **What Type of Personal Information Will Be Collected?**

Should you agree to participate, you will be asked to provide information about your biological sex, age as well as your cultural, immigration, linguistic and educational background. You will be asked about your experience and the challenges you came across with your languages Spanish-English as immigrants and how you overcame those barriers or challenges you came across.

If you consent to be audio or videotaped during the interview, only the researchers will have access to the recordings (student and supervisor). The recording will never be shown in public or shared with anyone beyond the student and supervisor.

*There are several options for you to consider if you decide to take part in this research. You can choose all, some or none of them. Please review each of these options and choose Yes or No:*

*I grant permission to be audio-taped:*

*Yes: \_\_\_ No: \_\_\_*

*I grant permission to be video-taped:*

*Yes: \_\_\_ No: \_\_\_*

### **Are there Risks or Benefits if I Participate?**

By participating in this research, there are no foreseeable physical risk. However, there is the possibility of discussing issues such as immigration experiences, linguistic discrimination or racism that could make you feel uncomfortable or upset. If that is the case, you have the right to refuse to discuss those issues and to refuse to answer any question that you are not comfortable with.

We will conduct the interview and word description task using Zoom, accessed through a password-protected university account. Zoom has high level security precautions built in so your confidentiality is protected. We will record the interview using the Zoom feature and will upload and store on a password protected computer without any personal identifiers.

Your participation may increase educational awareness and understanding of Calgary's bilinguals' speakers of Spanish and English regarding their language preferences. You will have the opportunity to reflect on your experiences and challenges as bilinguals/ immigrants, knowing to be rather comforting to be heard by others.

You will not be paid to participate in this research.

### **What Happens to the Information I Provide?**

I, the student, will have access to the data, along with my supervisor, whose information is listed above. The participant's name will never be disclosed to the supervisor. I will change your name to keep your information anonymized and confidentiality will be kept. Should you decide to withdraw your information from the study, your data will be destroyed upon completion of the study. You must inform the researcher one week after completing the interview and word description task. If you wish to withdraw from the research, you can email Nicole Puccinelli or Angela George.

No one except the researcher (myself) and the supervisor will be allowed to see or hear any of the answers to the tasks or the interview audio or visual recording. The tasks will be stored in a password-protected computer and encrypted files and only accessible by the researchers. The anonymized data will be stored for five years on an encrypted file, at which time it will be permanently erased.

Would you like to receive a summary of the study's results? Yes: \_\_\_ No: \_\_\_  
If yes, please provide your contact information (e-mail address):

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## Signatures

Your signature on this form indicates that 1) you understand to your satisfaction the information provided to you about your participation in this research project, and 2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project after one-week data is collected. If you wish to withdraw from the research, you can email Nicole Puccinelli or Angela George. You should feel free to ask for clarification or new information throughout your participation.

Participant's Name: (please print) \_\_\_\_\_

Participant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's Name: (please print) Nicole Puccinelli

Researcher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Questions/Concerns**

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

Nicole Puccinelli,  
Faculty of Arts, School of Languages, Linguistics, Literatures and Cultures, Spanish Program,  
*and*  
Dr. Angela George,  
Faculty of Arts, School of Languages, Linguistics, Literatures and Cultures, Spanish Program,

If you have any concerns about the way, you have been treated as a participant, please contact the Research Ethics Analyst, Research Services at the University of Calgary. A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.

## APPENDIX B: Interview Script

### Interview questions for participants

**Name (last name and age)**

#### **1. Before emigrating**

- Where were you born? (Country City)
- Why did you decide to emigrate to Calgary and Canada?
- Do you have friends or relatives who helped you emigrate?
- What is your social network like in Calgary? (Where are the people from, their ages, occupations, etc.)
- What image did you have of Calgary and Canada? And of your country?
- Do you ever think of returning to your home country?
- What have you studied and where?

#### **2. Arrival in Canada**

- When did you arrive to Canada and Calgary? Where did you first arrive? Who welcomed you?
- How did you feel during the first few years? (relationship with people)
- How did you relate to other Spanish speakers and with Canadians?
  - In the town / city?
  - At school with the children: were there other Spanish speakers?
  - At work, where did you work?
- Did you study in Canada or Calgary? Explain.

#### **3. Family**

- Has your family increased since you came to Canada?
- What language do you use at home?
- Do you think you maintain a good level of Spanish?

#### **4. Language**

- What languages or dialects do they speak in your country?
- Did you already know English before arriving in Canada?
  - Yes: How? What did you do to improve it? Where / with whom did you improve it? When / with whom?
  - No: How / with whom did you learn it? Did you study it or did you just learn by talking?

- o Are you still practicing? In what context? Is it difficult for you? How much did you learn English? Did you keep practicing it afterwards? In what context? Was it difficult? How long did it take you to learn English?
- What language do you work in?

#### **4.1 Aesthetic and affective perception of languages**

- o Which language do you find more beautiful, Spanish or English?
- o What language do you prefer to read in?
- o What language do you prefer to write?
- o When you write a note at home, in what language?
- o When you write a text message on your cell phone, in what language?
- o The shopping list, in which language do you write it?

#### **4.2 Experience with English**

- Do you speak English fluently?
- Have you improved your English over the years? Do you think you can improve? What helped you improve your English?
- Do you mix your languages? In what situations? Examples

#### **4.3 Experience with Spanish**

- With whom do you practice Spanish?
- In what context?
- Have you lost a bit of fluency?
- Are you influenced by another language? Interference? Examples
- Do you think it is important to maintain the language and culture of your country?

#### **5. Friends, neighbors**

- Were your friends or acquaintances Spanish-speakers at first?
  - o Do you maintain your Hispanic customs?
- Are they friends with English speakers? Since when?
  - o Have you adopted Calgary customs? The Stampede, for example.
- Are your best friends currently Spanish or English speakers?
- Are your neighbors Spanish or English-speaking?
- What relationship do you have with your neighbors?

#### **6. Leisure**

- Do you cook Hispanic dishes / meals. Canadian food or both? Which?
- Have you adapted to the meal times or keep those of your country?
- Are you a sports/ team fan? Which one?
- Do you play any sport?

**7. Media: which language do you prefer ...**

- TV (What programs do you watch?)
- Radio (What programs do you listen to?)
- Music (What music / singer do you listen to?)
- Internet (have you changed your communication habits with your country online?)

**8. Association life**

- Are you or were you a member of a Hispanic association?
- Are you a member of any Calgary association?
- What are the advantages of being part of these associations?
- What objectives did they have? Did you meet them?

**9. Politics**

- What interests you more: the politics of your country or that of Alberta / Canada? Reasons?

## APPENDIX C: Word Description Task

### Word description task

A series of words will be named and I will ask the participant to explain the mental image they see when they hear that specific word. There will be words both in English and Spanish. Participants will also, describe the degree of emotion that each word mentioned causes them on a scale from 0 to 5; 0 being that it does not reflect a certain emotion and 5 emotionally charged.

1. This is the word. What image comes into your head. When you hear the word “Árbol” (tree) what mental image do you see, please describe the image. What level of emotion do you feel on a scale of 0 to 5; 0 being that it does not reflect a certain emotion and 5 emotionally charged. The chart below demonstrates a possible response from a participant.

Word	Level of emotion; possible participants respond	Possible respond expected from participants
<b>Example:</b> Árbol/ Tree	Árbol/ 5/5 Tree 3/3	With <b>árbol</b> (tree) I imagine a trunk with lots of branches and with <b>tree</b> I imagine a <b>palm tree</b> .

Words that will be used for the study		
apple	coat	knee
bag	comb	leaf
ball	cord	library
basket	cow	line
bed	cup	lock
bee	curtain	map
bell	cushion	match
bird	dog	monkey
bike	door	moon
board	doll	mountain
boat	egg	nail
bone	engine	neck
book	farm	net
bottle	flag	office
box	floor	orange
branch	fly	oven
bridge	fork	ocean
brush	forest	pen
bucket	garden	pencil

button cake camera city cat car clock church	glove hat horse hospital house island jewel key	picture pig plane plate pocket ring room school
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