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Marrying Science and Experience: An Exploration of How Multilinguals Interact With and Between Languages and Cultures

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Marrying science and experience: an exploration of how multilinguals interact

with and between languages and cultures

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Date: April 17, 2020

Abstract

This paper will begin exploring bi- and multilingualism at an individual level. The author will explore previous research written on how the brain processes several languages, how languages might affect individuals emotionally, and how one switches between languages as well as the effects of this, if any. Beyond this, the experience of navigating languages between discourse communities and balancing two or more cultures will be considered. As the title suggests, the science of multilingualism will be married with the diverse individual experience while considering both intrapersonal and interpersonal relations. The author will look at her own experience as well as others' to gain a sense of variability and contrast. To conclude, the implications for language teaching and possibilities for future research will be discussed.

ERIC Descriptors

Language Learning
Individual Multilingualism
Biculturalism
Language Processing
Language Switching
Emotions
Identity

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INTRODUCTION

Language learning stories are 'unique and rich sources of information about the

relationship between language and identity in second language learning and

socialization.'

in Moate & Ruohotie-Lyhty, 2017, p. 215 (from Pavlenko, 2011, p. 167)

Bi- and multilinguals have many stories to tell. In recent years, being surrounded by

people speaking several languages and becoming bilingual myself, I have found myself more and

more fascinated by multilingualism in its many forms. My journey of learning a second language

in Senegal required me to navigate two cultures and several discourse communities in a new-to-

me environment where being multilingual is the norm. I was given a new name and found myself

becoming bicultural as well as bilingual. I started to question my sense of identity and ask others

how they experience the everyday balance and navigation between languages, and often,

cultures. Comparing and contrasting my "becoming bilingual" experience to my husband's

experience -- coming from a multilingual, multicultural environment to a primarily monolingual

environment -- led me to believe that there is much value (besides fascination) in looking deeper

into understanding and learning from our diverse experiences. In other words, what started as a

personal inquiry of how to navigate between languages, cultures, and perhaps "multiple selves"

became a point of conversation with those around me.

As a language teacher and learner, this research will help me in my own journey of

navigating cultures and languages as well as trying to maintain a connection to and fluency in

both while continuing to learn more. Further, it will serve as a way to help me better understand

my husband's and students' experiences and will also contribute more perspective to the field. I

believe this is an important place to begin understanding our interactions and relationships as well as the many factors of language learning and transitioning.

In this paper, I will explore how multilingualism affects one's thinking, emotions, and identity -- including both acquired and intentionally learned multilingualism -- by connecting a variety of multilinguals' perspectives and experiences with previous research. Beyond this, I will also explore how one navigates a multi/translingual and often bi/multicultural life.

Defining Terms Used

For the purpose of this paper, the term "bilingual" will be used for anyone who speaks *two* languages, and "multilingual" will be used for anyone who speaks *three* or more languages when referring to someone in particular. (Although we can consider bilinguals multilingual for simplicity, I have found that bilinguals identify more with the term "bilingual" and will therefore use both terms accordingly.) However, if I'm not referring to someone in particular, I will use "multilingual" to include anyone who speaks two or more languages. In addition, "LX" will be used to refer to any language beyond the L1 (the mother tongue or native language) when not referring to someone in particular.

There is so much variability within the terms 'bilingual' and 'multilingual.' Beyond the number of languages, we might consider other factors such as whether one grows up in a bi- or multilingual context (linguistic background), whether one's curiosity or motivation to communicate with others is what drove one to learn languages (internal motivation), whether one has learned the language in school or outside of school (learning environment), where one moves (living context), the age one learns the language (age of onset of acquisition), how often one uses it (frequency of use), and the proficiency level of each language or one's total proficiency (level of multilingualism). Each person will have their own experience with dynamic change

throughout the course of their life. Nothing is able to truly be isolated in the complexity of one's experience.

Research Objectives and Process

The research component of this paper was my way of making connections between previous research and the daily lives of myself and several people around me, including my husband and students. There are two main objectives with respective research questions that will be addressed.

The first objective is to examine current research on the neuroscience and emotional aspects of individual multilingualism, specifically language processing and language switching.

1. How does the brain process more than one language?
2. What are the effects of switching between languages?
3. How does this connect to the individual experience of multilinguals?

The second objective is to inquire into the navigation and balance of languages and cultures throughout one's life trajectory, examine how one's emotions and identity are affected throughout this navigation, and consider factors of learning, such as environment and motivation.

1. How do individuals use and navigate between their languages and cultures in daily life?
2. How do thoughts, dreams, and inner speech differ between various languages?
3. Does the interaction between multiple languages impact one's identity?
4. Does one identify more with one or more of the languages or see each as contributing to their identity?
5. How are emotions expressed and felt differently in languages?

To gain personal insight and perspectives from those around me to connect to research, interviews were conducted with five adult students of English who will be referred to using their initials throughout the paper: DC from Italy, AC and RS from Japan, MR from Mexico, and MG from Senegal. Three of five interview participants are female and two of five are male. Interviews were about 45-60 minutes long each. Participants were asked questions related to

those in the second objective above: specifically about their linguistic history, their language learning experiences, how they navigate between the languages and cultures, and if they feel different using each in different settings. The qualitative findings from these interviews will be connected throughout the whole of the paper as appropriate.

LANGUAGE PROCESSING

The exploration of language processing in multilinguals leads one to delve into several aspects, such as language availability, activation, inhibition, selection, and production. The purpose of this section is to review sources and studies that cover these various aspects and to determine what hypotheses and concepts have the most substantive evidence and where further research may be required. As appropriate, I will connect the evidence and hypotheses with my own experience in becoming bilingual as well as my husband's and students' experiences as multilinguals.

How Does the Brain Process More Than One Language? Availability and Activation

In order to explore how the brain processes more than one language, we must consider what activates each language in the brain and causes one (or more) to be selected for production as well as any cross-language interaction in the process. However, before considering the activation of languages, let's look at two different views of language access and availability: non-selective access and selective access. While selective access refers to specific and separate languages being available for activation one at a time until one is selected, non-selective access refers to the possibility of any languages one has in their repertoire being selected for production, or as de Bot explains, "a parallel search through all languages, words not being organised primarily through language, but e.g. through frequency" (2004, p. 18).

This evidence thus supports the view of non-selective access, which points to the likelihood of more cross-language interaction in language processing. However, Grosjean (2001) suggests that the strict dichotomy between non-selective and selective access might not be realistic considering the dynamic interplay on a situational continuum in daily life (versus ends of a spectrum). In other words, there might be times when one has "partly selective" access when in an intermediary mode along the continuum. Language modes will be discussed further below.

This prompts us to ask: if any language is available for activation, what activates the language(s)? One factor to consider is the learner's history and use of each language. Gabryś -Barker's study examined language activation for multilinguals through their verbalization of thoughts after completing a translation task. Based on previous studies, Gabryś-Barker suggests that there are three levels of processing: active, selected, and dormant. This suggests that one language or more might remain dormant, especially for those who speak three or more languages. She also observes that languages may be activated intentionally or unintentionally based on factors such as stimulus (input), knowing your audience, producing a target language (output), easiness of expression, naturalness, safety, etc. (2006, p. 107-108).

One might infer that different languages will be more easily activated and used for different comments in processing based on exposure, the learner's history and experience, and competence in each language. Gabryś-Barker's study (2006) noted that affective comments were dominantly verbalized in participants' L1 while cognitive and metalinguistic comments were verbalized in the L3 and L2 more often than the L1. This infers that one's inner speech might be conducted primarily in the L1 while other languages learned in different settings and used for different situations might be more dominant in cognitive and metalinguistic terms. It was also noted that the change in language input did affect the hierarchy of the language(s) that were

verbalized as output (e.g. in this study, with L1 input, only L1 and L3 were verbalized; with L2 input, more L3 and L2 were verbalized than L1).

Both of these observations support the idea that there are several factors to language activation and that languages may remain dormant for a period of time if not activated. However, these results can not be taken as the norm or pattern on which to base all language activation or apply to all situations and individuals; rather, all of the observations from this study "point to the fact that the language processing of multilingual language users is very much determined by individual factors and only partly by innate language characteristics." (Gabryś-Barker, 2006, p. 122).

Another factor of language activation to consider is the frequency effect, which is often explained as vocabulary or representations used at a higher frequency, assuming higher levels of activation (see Kroll & Gollan, 2014). Considering this, the activation of a language or its corresponding words might also depend on the frequency at which they are used or produced. I will review the costs of this (also referred to as the frequency-lag hypothesis) in a section that follows.

Similarities between languages, such as cognates, interlingual homographs, and shared syllables, are yet another set of factors that can trigger parallel activation of languages (see Kroll & Gollan, 2014; de Bot, 2004). A study done by Martín et al. in 2010 examined the inhibitory processes when participants were shown interlingual homographs, which are words that share the same written form across more than one language but differ in meaning, such as *pie*, which means foot in Spanish. The first task asked participants to recognize the homographs in any language, allowing them to respond without a target language (and therefore faster with interlingual homographs). The result of this first task, although not the primary goal, supports the

idea of parallel and non-selective activation in bilinguals (the authors are specifically looking at

L1 and L2 in this study). The second task, or experiment, of the study went further and examined

the time course of inhibitory processes beyond activation based on the assumption that

competition occurs and use of inhibitory control will be necessary when there is a target

language (also found in the first task).

It is also significant to note the role of emotions in activating a language. When there is a

sudden and intense emotional arousal (such as anger or frustration), certain languages – often

those in which one feels they can most naturally express themselves in deep or strong emotions –

will be activated. In Dewaele's words, during these emotional situations, "unplanned limbic

vocalisations may escape the speaker's conscious control and be uttered in a different language

than that used in the rest of the interaction" (2010, p. 106). For some, this may not be limited to

one language. Cristina from Dewaele "reports that although she still prefers Catalan to express

very strong emotions, English words get activated too" (2010, p. 98).

After reviewing several studies done on various issues in the bilingual and multilingual

lexicon, de Bot offers a rather simplified *multilingual processing model*, a variation of Levelt's

Speaking Model, to include two or more languages. This model suggests the presence of

language nodes (also referred to as language tags) which act as an external monitoring device

that informs components about the language-specific subset to be activated leading to the

selection of elements from the right language. De Bot suggests that if there is intention to use a

specific language, this "originates at the conceptual/communicative intention level and is relayed

to both the system generating lexical concepts and the language node" (2004, p. 28). In other

words, the intention to use or select a certain language from one's repertoire is first based on

one's communicative intentions and therefore which languages have the highest frequency in

that domain or intention to be activated. For example, if one intends to communicate their frustration in a respectful or polite way, the language(s) in which one can do this will be activated. The language(s) activated from this communicative intention will then continue to process through the language node and syntactic procedures until a language is completely activated for output. De Bot also mentions the relationship of an element's early availability with its higher chance of being selected, likely indicating "an interaction between level of activation and speed of processing" (2004, p. 30).

Inhibitory Control and Competition for Selection

As mentioned above from Martín et al., the common thought is that once more than one language is activated, inhibitory control is used to allow one target language (usually one that is more context-specific where production takes place) to win the competition for selection. Some studies have been done to determine the time course of this inhibitory control – whether it is momentary or sustained – but results have remained rather inconclusive with varied methodology and outcomes (see Martín et al., 2010). What we do know is that inhibitory control often plays a part to some extent during language processing when more than one language is activated.

According to de Bot (2004), there seems to be a default level of activation necessary for a language to be in competition for selection, especially for multilinguals who have languages which they use less frequently. In their review, Kroll and Gollan discuss the cross-language competition in production specifically for bilinguals and note that both languages – L1 and L2 – are affected with evidence for language convergence and that "there is an accommodation of the two languages that reflects mutual adjustments" (2014, p. 176). They also suggest the possibility of repeated L1 inhibition being related to its reduced frequency (see below).

Language Modes and Language Choice

Grosjean (2001, 2010) offers another perspective on language processing and production in which he argues for a significant confounding and variable factor lacking thus far in several studies: language modes. He defines language mode as a "state of activation of the bilingual's languages and language processing mechanisms at a given point in time" (2001, p. 3). Although this definition specifically refers to bilinguals, the same can be applied for multilinguals. The idea is that multilinguals find themselves moving somewhere along a continuum between different language modes, whether monolingual, bilingual, trilingual, etc. depending on a number of factors (such as participants, situation, content of discourse, and function of the interaction) (Grosjean, 2010). These are the same factors of language choice.

Language mode is intertwined with and essentially determined by language choice: choosing a base language when more than one might be activated and whether another language can be activated to some degree to determine the language mode. For example, if one is in a situation where the only common language between participants is LX (in the presence of a monolingual), LX will become the base language in a primarily monolingual mode. If a couple of those present know another language, they could choose to use this language to exclude the others or make an inside joke (this is also known as "function of the interaction"). This is the case for MG; he might use one of his multiple languages to make a comment to others that know this language while excluding those who don't. He noted that he also sees this at school with people speaking other languages and not knowing if they are talking about him. RS mentioned being mindful of times when she could use Japanese but chooses to use English to include everyone. She knows what it's like to be on the other side of this interaction; for example, not knowing what her friend is saying to her husband in Tagalog right in front of her. This is

something to be aware of when choosing a language in a social setting where others might be considered. MG and I often use Wolof with each other while at home and in public places but now try to limit our use of Wolof when we are with family because they want to be included.

If one finds themselves in a situation where other participants also know another language or two, one will be in a primarily bilingual or multilingual mode (able to mix languages more freely). There are also times where content or situation, such as academic, legal, professional, governmental, personal, public/private, urban/rural settings, will likely determine the base language and whether one may need to use another language based on formality or vocabulary needed. MG explained that when he was at school in Senegal, the only language allowed was French, so only if he was with his closest friends could he speak Wolof during recess:

> If we are together, we can talk in Wolof. But if somebody else is here, we just gonna talk French because we don't know if they are gonna tell the teacher. But if it's only us, we don't care. We just talk Wolof.

He went on to explain how he used each language throughout the day while he was living in Senegal:

> If I'm at home, it's just Pulaar. If I'm at school, that's just French. If I'm with friends, it's just Wolof. If I'm at my grandparent's house, that's just Saranxule. In one day, I can speak all of them because my house and my grandparent's house are so close. It's the same house, one door. It depends on who I'm with or where I am. I use them every day with different people.

This example also demonstrates how quickly and often a language mode can change. Grosjean states that "movement along the continuum can occur at any time, as soon as there is a

need for it," which would cause activation of another language or change the degree of activation and use of each language (2010, p. 42). It is also important to note that "many researchers believe that, in a monolingual mode, the language not being used is not totally deactivated… because bilinguals are often influenced by their other language, even in a monolingual situation" (Grosjean, 2010, p.42). This can be seen in the dynamic interferences that bilinguals sometimes produce, which includes any deviation from the norms of one language due to influence of another language. Interference is sometimes called "transfer" or "transference" due to the nature of transferring elements or features of one language to the other (Grosjean, 2001).

Related to the idea of regular movement along the continuum and between language modes, Grosjean presents the 'Complementarity Principle' for multilinguals, stating that each language is acquired and used "for different purposes, in different domains of life, with different people" (2010, p. 29). He continues by explaining that "different aspects of life often require different languages" (2010, p. 29). Some domains, which one might also consider as discourse communities or contexts, might use two or three languages, while some might be restricted to one depending on one's network of interlocutors in that domain or context. This is important to consider because language use spread amongst different domains determines how often a language might be used each day and thereby affects the language development. There is often domain-specific vocabulary that would likely call on the language where one has that knowledge or ability, such as a professional setting that uses technical terms or an informal domain where slang and/or cultural references are used frequently. This is also why an expectation of all multilinguals gaining equal or total fluency in all of their languages, and therefore, ability to use in all domains, is often unrealistic, although there are exceptions for translators and interpreters whose jobs depend on this skillset.

Borrowing, Code-switching, and Translanguaging

Transference is similar to the concept of "borrowing," which is "the integration of one language into another" by adapting an element (word, phrase, etc.) morphologically and phonologically (Grosjean, 2010, p. 58). Borrowing is often used by those who use their language resources from one language to help them express themselves in another where they might be lacking in vocabulary. For example, if I don't know an equivalent word in Wolof, I will sometimes use an English word and change its pronunciation to "sound more French" so that I might be understood when speaking to MG. MG does the same from French to English. This is very common and can be seen around the world by both monolinguals and multilinguals but seems especially prevalent for multilinguals who have been exposed to several languages.

Code-switching, on the other hand, is "the alternate use of two languages," where one might completely switch between two languages without transferring or morphing elements of either language (Grosjean, 2010, p. 51). In other words, code-switching is like taking a piece of pie from one pie (i.e. language) and placing it where a slice would be in the other pie (i.e. another language) without changing anything in either pie other than placement. One might do this to be more expressive or be best understood by those who also speak the other language, at times when there is a linguistic need to be filled by another language (perhaps due to lack of vocabulary in a certain domain), when strong emotions arise, or again "as a communicative and social strategy, to show speaker involvement, mark group identity, exclude someone, raise one's status, show expertise" (Grosjean, 2010, p. 54-55).

MR, for example, likes to use terms of endearment such as "mi celito" and "mi vida" from Spanish with her nephews even when otherwise speaking English because she feels it is

best expressed and more meaningful in Spanish without an equivalent in English. She also talked

about using the term "homesick" to most succinctly express the feeling:

> I always express myself in Spanish. But I told you English have really good words. For
> example, I want to say… the weekend I feel really alone because the storm winter then I
> can't go out. I was alone in my house. I say, "I miss my neighbor, I miss the world, I miss
> my friends, I feel departed in my city…" I have to say all of that things in Spanish. But in
> English if I say "I am homesick now" I just express all that feelings. That feeling that I
> feel really, really bad. But when I say "homesick" I express all that said before in one
> word.

There are innumerable examples of words and phrases that might be chosen and used

within other languages. AC provides "movie" and "hamburger" as examples of how vocabulary

is used with Japanese:

> We say "movie." Movie: there is a Japanese [word] but also we use "movie" a lot. It's a
> lot of English. We don't have a name "hamburger" in Japanese because it came from
> America. So that's why [we use] "hamburger."

Code-switching is also common in multilingual contexts where colonial languages

(including the globalized use of English) have influence. This can be seen in international films

and television series as well as in everyday life. In Senegal, for example, some French

vocabulary has become so common that it will be used with other native languages of the

country, but most often Wolof. In some cases, the colonial language can become so frequently

used that some of the original, deeper vocabulary of the native language might become forgotten

with reduced use especially by the younger generations. This alludes to the issue of attrition:

when a language or certain vocabulary of a language might be lost with reduced frequency. MG

and I often code-switch with Wolof, French, and English based on what vocabulary we know in a language, how we feel we can better express ourselves, or be better understood. However, this is where the differentiation of code-switching and translanguaging may also become blurry.

To my understanding, code-switching differs from the concept of translanguaging mostly in how we view the languages and their systems in multilinguals' brains: as separate (code-switching) or together as one linguistic repertoire (translanguaging). For example, if we consider all languages to be one whole system or repertoire, any of the languages could be activated as needed to communicate (also depending on context, interlocutors, etc.). This would be considered translanguaging as one would not necessarily be inhibiting or deactivating languages but choosing from a whole repertoire as needed and, therefore, not technically switching between languages but working with all of their resources as one. As Pavlenko suggests, "while bilinguals do have language- and culture-specific affective repertoires, they do not necessarily switch them 'on' and 'off.' In interaction with other bilinguals, they may draw on the full range of their repertoires" (2005, p. 127). Although Pavlenko was referring to code-switching, I believe this to be true for translanguaging as well.

It is important to note that code-switching should be considered, as Shana Poplack puts it, "a verbal skill requiring a large degree of linguistic competence in more than one language, rather than a defect arising from insufficient knowledge of one or the other" (Grosjean, 2010, p. 57). Code-switching allows bi- and multilinguals to utilize all of their linguistic resources. It also "typically implies that the speaker is aware of the linguistic repertoire of the interlocutor" (Dewaele, 2010, p. 196). Those who are familiar with living in a multilingual context with other multilinguals will likely feel that code-switching is natural and common in that context (Dewaele

& Nakano, 2013; Dewaele, 2016). I will be further exploring how language switching can affect one's feelings or perception of their own identity in a section below.

Costs and Comparison

Some of the research done suggests that there are costs in language switching and processing for multilinguals (in general and in comparison to monolinguals). Kroll and Gollan found that, based on evidence up to when they published, "inhibition is more global than local," leading to the thought that "the suppression of the entire language, for whatever time course it follows, may be differentially damaging to low-frequency and vulnerable aspects of the lexicon" (2014, p. 177). This thought refers to what could become a long-lasting consequence of inhibitory control for the L1. Due to having more languages from which the brain can select, some vocabulary in each language will likely be used less frequently than the vocabulary that a monolingual will use. In other words, the "high-frequency portion of the lexicon" is reduced, leading to overall reduced frequency of both languages; this is referred to as the *frequency-lag hypothesis* (Kroll & Gollan, 2014, p. 177).

The frequency effect may also relate to *tip of the tongue states* (TOTs), a term which refers to having a word at the tip of your tongue but being unable to produce it. These tend to occur more often with low-frequency words but can also occur without competition between languages (for words that one knows in just one language). This phenomenon is assuredly not limited to multilinguals but might occur more often for them when it comes to object names (being specific to a language) compared to proper names which are generally shared across languages (see Kroll & Gollan, 2014).

Additional costs that have been studied in multilingual language processing are language switching and repetition costs. The "cost" refers to the length of time it takes one to switch

between languages, where the longer it takes, the greater the cost. For example, the *asymmetrical switch cost* refers to the cost of switching languages back-to-back, where switching back to the L1 proves to have a larger cost -- or takes more effort to overcome the persisting inhibition -- compared to switching into the L2. This assumes that there is a reactive, persisting inhibition that is greater when inhibiting the L1 and producing the L2. In my case, this would suggest that it takes me longer to switch back from Wolof, my L2, to English, my L1, due to the inhibition of L1 being greater. The *n-2 language repetition cost* also assumes a persisting inhibition but must be measured with three languages. In measuring performance of language A with different trials for each language (A, B, C), it has been found that "performance of language "*A*" is [typically] worse in AB*A* sequences than in CB*A* sequences" (Declerck & Philipp, 2018, p. 609).

Neuroscience

Andrews (2019) offers a neuroscientific and neurolinguistic perspective on language processing, stating that one of the issues with traditional neural models is imagining language processing as an autonomous and serial process (p. 7). She, along with others in the field, call for further research to expand the current view and hypotheses of the organization and localization of multiple languages in the brain. They are looking at how languages are acquired and how they are processed in order to better contextualize "neural models of bilingualism and multilingualism that may form a feedback system with other cognitive processes, including perception and memory" (2019, p. 8). This would allow us to view it as a "dynamic system-level process" and look beyond localization (Andrews, 2019, p. 158).

One of the first technologies used in the field of neuroscience and multilingualism was *cortical simulation mapping* by Ojemann, which is an invasive procedure done only as needed for patients who are diagnosed with epilepsy (p. 9). Results showed high variation of language

centers, such as localization, organization, and structure, between subjects (p. 10). Each imaging technology (including fMRI, EEG, PET, MEG, TMS) has its own strength and limitation, so it is recommended to use a combination for balance in studies (p. 17). Again, as Andrews suggests in response to the limitations and issues faced thus far in research, "future work must move forward into more nuanced contextualization of localization-based data, and one way for this to happen is to reevaluate how variation at the individual and group levels is understood and analyzed" (p. 155).

Discussion and Connection

Much of this research assumes that languages can be quite simply separated and doesn't mention the concept of translanguaging (when referring to allowing any language to be used in repertoire rather than limiting and inhibiting) as another variable or option. However, looking at the costs of inhibiting languages might lead one to believe that the act of translanguaging might help us better retain multiple languages as they remain active, to at least some extent, rather than being inhibited or suppressed for periods of time.

For multilinguals, the languages used most frequently will likely be more easily activated, whereas other languages might lose frequency as they add more languages. This is the case for MG; he posits that with the addition and use of English, his French (particularly the written form) might be most affected while still active by bridging cognates to be used in and with English. Although high-frequency French words are also still being activated while speaking Wolof, English is now also finding its way between the languages when spoken. Because MG perceives all of his languages as still active and/or available for activation, he does not expect any of his languages to be inhibited or suppressed for long. Considering this, I do believe one's motivation and perception in sustaining languages and their activation/use affects

the ability to do so. One can be more motivated to seek out ways to keep languages active, such as seeking opportunities to receive input and produce output by maintaining relationships with those who also speak the language.

As far as costs, MG and I have both found ourselves struggling with TOTs in juggling languages even with some higher-frequency words (simple object names, such as *house* and *blanket*). Having to search for and find the right word out of several options surely is a cost; however, as noted, we have yet to see a pattern in higher-frequency versus lower-frequency words.

EMOTIONS AND IDENTITY

We are always multifaceted users of language, playing the roles of speakers, hearers, and observers (sometimes simultaneously), and we as users are defined by the multiple and variegated dynamically given speech communities and communities of practice in which we language. (Andrews, 2019, p. 198)

Compared to the last section on language processing, which isn't necessarily considered or questioned in the day-to-day life of a bi- or multilingual (as they are simply living it), emotions and identity are more likely to be affected and noticed in the daily lives of bi- and multilinguals. This section will explore more personal (intra- and interpersonal) aspects of navigating languages by considering factors of linguistic history, context, and the intertwinement of language, culture, and identity. Examples and qualitative findings from interviews with participants will continue to be cited throughout.

One of the most influential and extensive pieces of research done in the area of emotions and multilingualism is the Bilingualism and Emotions webquestionnaire (BEQ) created by Dewaele and Pavlenko. The questionnaire asked participants about a wide range of linguistic

information in the format of close-ended questions, 5-point Likert scales, and open-ended

questions. In the words of Pavlenko (2005), this webquestionnaire study "succeeded in eliciting

subjective experiences and beliefs of an unprecedentedly large group of multilinguals… to

understand how and why multilingual speakers select particular languages for emotional

expression and to formulate questions and agendas for future research" (p. 39). The BEQ was

online from 2001 to 2003 allowing for a large number (1,039 total) of bi- and multilinguals from

a variety of places (although primarily gathered representation in Western countries and regions

of Asia), ages, and linguistic backgrounds. There were, of course, limitations and skews in the

representation due to the webquestionnaire having certain requirements: to understand a certain

level of English and metalinguistics, to have internet access, and to know about the survey as it

was primarily distributed via listservs and informal contacts. The BEQ and its findings have

since influenced and been referenced in numerous studies, including my own.

In order to consider the relationship of emotions and multiple languages, there are many

factors that we can consider, including those listed in the introduction of this paper. Many of the

studies and sources I reviewed look at a combination of dependent variables to consider the

significance of each factor or variable. For this research, I was more interested in the whole,

dynamic experience and relationships of factors over the significance of each factor or variable.

Considering this, participants were asked about their linguistic history, their experience learning

languages in different settings as applicable, and what they have noticed or observed in their

navigation of various languages and cultures in their interviews.

Considering Linguistic History

To start, it makes sense to consider our linguistic histories: our mother tongue(s), what

languages we were exposed to (primarily multilingual, bilingual, or monolingual background and

cultural context) and acquired, as well as family history and expectations of language acquisition and use. For example, MG (L1 Pulaar, L2 Wolof, L3 Saranxule, L4 French, L5 English) grew up in a multilingual context where several languages were spoken around him every day and each language was used with different people and for different purposes. His father expected him and the whole family to speak Pulaar while at home because he understood that they used other languages such as Wolof and French outside of the home and wanted them to maintain their cultural heritage.

In contrast, I (L1 English, L2 Wolof) grew up in a primarily monolingual context where my family, friends, and the majority of people in public and at school spoke primarily one dialect of English. Although some friends spoke other languages at home, I was not exposed to them often. While one could pursue or learn another language due to personal interest or family expectation, in the larger society, learning other languages was not necessarily encouraged or seen as necessary to communicate with the larger population, both domestically and globally, due to English becoming a lingua franca.

MR (L1 Spanish, L2 English, L3 Nahuatl) grew up speaking Spanish with her family and friends but was exposed to other languages in the surrounding community. She believes that this exposure to different languages and people was an advantage and might have affected her curiosity and interest in other languages as well as easiness in adapting:

Maybe because I'm Mexican you have contact with many different people. In Mexico City you meet people from everywhere -- Canadian, American, different places. Small town with many different styles of life and see different worlds. Maybe it's easier for me because I don't feel many change, just structure and some words and ways to express is

the big difference. The other things for me is pretty easy. I think it depends on the person.

I have the privilege to meet two really different worlds in Mexico.

As MR's example suggests, being exposed to so many languages but also seeing people in varying socioeconomic positions can really affect one's sense of self and ability to adapt.

AC (L1 Japanese, L2 English), RS (L1 Japanese, L2 English), and DC (L1 Italian, L2 French, L3 English) grew up in a primarily monolingual context: speaking one language with family and friends. One difference was a cultural and sometimes personal expectation to learn other languages, especially English, in a globalized society. All of the participants have since moved to the U.S. where they continue to study English. The next sections will expand on possible motivations, expectations, and influence of several factors in their multilingual experience, both interpersonal and intrapersonal.

Considering Cultural Norms

Beyond the linguistic background, we must consider the norms of each culture and society in which one lives or has lived and identifies with. The cultural norms include verbal and nonverbal communication, work norms, cultural expectations, and taboos. For example, each culture has its own *display rules* known to its population, whether this is masking a certain emotion or displaying it more freely (Pavlenko 2005, 97).

During our interview, RS shared an anecdote about realizing a difference in cultural norms regarding nonverbal and verbal expectations after moving to the United States from Japan. They were shoveling snow after a winter storm and expected their neighbors to understand that they wanted help without asking them (nonverbal communication). Upon finally talking to each other, they realized that the neighbors needed to be told or asked verbally to know that this was an issue. This was a learning moment for their family, illuminating a significant difference in

cultural expectations and use of verbal and nonverbal communication. She expressed that in

Japan, most is known or understood without saying anything, purely from nonverbal suggestions

or communication. This includes anger, which is expressed differently in many cultures. AC also

describes how this difference in cultural norms affects her preference for American English at

times, for its directness:

> In Japanese, they are always trying to be nice even if you think that's not right… that's
>
> why I like English in that part. So like, talking with Japanese is not easy for me. I have to
>
> figure out, "What do you really want to say?"... They are just not aggressive like
>
> American. People are not talking a lot… Rather than saying something, they are
>
> supposed to figure it out.
>
> There's an old saying in Japanese: "If there is no fire, there is no smoke." That's why,
>
> you know, if I don't burn it, it's not going to be problem. But I like to burn it... I want to
>
> say whatever I want to say. If you're wrong, you're wrong. I'm not supposed to say that
>
> in Japan. If I do that, I'm going to be a super aggressive person.
>
> AC goes on to explain how she feels a sense of freedom using English in the U.S.

and how she might choose between her languages:

> I'm thinking like I'm better, rather than I speak Japanese, I'm better to speak English. I
>
> feel more free. So that's why I think I like to speak with English more than Japanese. But
>
> if I have to talk something professional or working I would like to speak Japanese.
>
> AC clarifies that her proficiency level and lack of vocabulary are main factors in why she

would not yet feel as confident to use English in a professional setting. Kumiko, as cited in

Pavlenko 2005, also expressed how emotions are more directly expressed in English and

therefore easier for her:

It is easier for me to express things emotionally in English since culturally open

expression is condoned. In Japanese culture people are less open with their feelings and

expression is not as open… For example, it is easier to scold someone in English because

the expressions are more direct. In Japanese scolding may be done through distance-

creating acts rather than verbal scolding. (p. 117)

It is important to note that these differences are cultural and also vary between speakers

of different varieties of the same language, showing that language can not always be isolated

from culture. MI5 from Hammer (2016) also reported: "I think English is more me, the mindset

and everything… For me language is the whole cultural experience, not only the grammar" (p.

23). Furthermore, while some might feel more drawn to a certain affective repertoire and

therefore to the language for expression, some might have negative feelings and even try to avoid

interactions due to difficulty expressing themselves under the accepted display rules.

One's network of interlocutors, whether chosen or given, has been shown to be a

significant factor in adapting to new cultural norms and language learning. In the situation of

moving to a new country and culture, if we mostly surround ourselves with a community that

speaks our L1, we will have less exposure to and be less likely to use the LX or target language.

There is certainly a balance to be found in maintaining one's connection to L1 while also taking

on the target language and culture. This, of course, depends on the context and motivation of the

move, considering whether one has been displaced, forced, or moved by choice.

DC reflects on his experience of coming from Italy and working in an American plant

while navigating the two languages and cultures:

I spent a lot of time with Italian community. Because of the plant, there was a lot of

Italians. So I stay in the evening with Italian, dining with Italian, lunch with Italian. So

this was a big opportunity missed. I should meet with American workers, start to get in touch with them and practice English. I understand now it's too late. Also because it's important to understand the culture; it's quite different than our culture. And this is a big mistake also for the company… You cannot manage a plant in the United States with Italian culture. The culture is different, the approach to work is different, the condition is different… so it's not a question of language, but it's a question of really to understand what's happening.

Similarly, RS noted how limiting her social network to the Japanese community limited her interaction to, exposure to, and use of English. She remarks that her Japanese friends understand her without her having to verbalize. In many cases, especially for adults, the social network needs to be chosen or made a priority. For those of school-age, the social network is more of a given; that is, in school the social network is given, whereas everything outside of school might still be chosen. This will be addressed further in the following section on language learning context.

There are cultural norms that might make one feel as if they are taking on or adopting a different role. This is often a part of acculturation, the process of adapting to the surrounding culture by adopting cultural traits. Adopting these traits doesn't necessarily mean that one will lose the cultural traits they previously knew and carried but will likely become integrated as part of one's cultural self. MR describes how she changes her behavior and demeanor based on who she's with and/or their shared culture due to formality and cultural norms:

I have to change ....like move from one culture to the other culture. Because now in my work I try to be like here, like American people. When I see my Mexican friend, I talk like... I act like Mexican… like I say, I speak in Spanish, I speak slang, I hold the door

for her. Or when I go to the market, you find people from different countries, sometimes

American, sometimes Mexican or Puerto Rican, from many parts... I act like Mexican. I

hold the door, I say thank you, I say "ah sorry, come on, go ahead." I change my behavior

in Mexican environment and American environment.

She describes a sense of familiarity with those she knows from another culture and using

her native language (Spanish):

It's the people. In my building, I have a Mexican friend. He's here for five years

maybe… I was at work, talking with my boss or partners or something, and I speak "yeah

yeah" just general things, I hear people speaking English. Then sometimes he goes to my

lab and knocks on my door. I go out and say, "Hi!" then "Oh no, he's Mexican!"

"¡Hola!" Then I go out and I start talking more familiar with him. Maybe it's... I have

more time to meet my partners than him but it's different, I act more different with him.

Maybe because he's Mexican. But I... my behavior is really different with him than other

people. When I speak with my partners that are American, I speak more respectful. With

him, it's like aah… I joke with him…

She noted that English feels more formal than Spanish and how culture plays a part

beyond the language. It's also a matter of socialization. Here, she also notes a difference in the

warmth and coldness of her languages and cultures:

I feel the necessity to give a hug to her. Latin American people do that... help you with

different things and with more close... they hug you, they speak closer with each other.

And here the people not… For example, another thing that shock me in the U.S.A… In

Mexico, it's our culture maybe. When you are going out, for example, from this room,

you open the door. If somebody's outside, they wait. They open the door for you and say

"come and go ahead" or something or say, "Excuse me." But here the people say "excuse me" like "you are in the way, go out of my way." Here, the people is different. The people don't see you… It's a little cold word because the people don't see you. We say "excuse me, oh sorry, oh go ahead, oh have a nice day" or something like that. It's a big difference. And it's about the culture and the language.

Considering Interpersonal Factors: Context and the Language Classroom

The language learning context might also determine how much of these cultural norms are understood and internalized. In many foreign language classrooms, where any language is taught in a foreign context, the basic structure and formal academic language is taught more than the informal, personal, and emotional aspects of the language. Although there are exceptions, the latter are more often learned outside of the classroom via one's social network -- one might say in a more natural context. For some, language learning starts and ends in the classroom often because of the lack of exposure outside of the classroom (if learning as foreign language) and also due in part to one's motivation.

Most participants started learning a foreign language in their L1 context and continued in the LX context. As an example, AC began learning English in middle school where the main focus was grammar, reading, and writing. However, AC had more personal motivation to learn a second language. AC saw English as an opportunity to talk to more people in different parts of the world:

Because most of Japanese think America is cool and American culture is awesome. And English is cool. So if I can speak better English people gonna respect me. People will think that I'm smart. So the self confidence… you know, I wanted to see more worlds. That's why I started learning English because if I can understand English, I can

understand more people. I can understand how they think, how they act and something like that. Rather than stay in Japan I wanted to grow more opportunities.

AC therefore sought out ways to practice her English speaking and listening skills outside of school while in Japan. Music was one way she exposed herself to more vocabulary outside of school. Once she graduated from high school, AC would go into the city and greet foreigners at the train station, asking if they needed help looking for something. While guiding them, she was able to practice her English and expose herself to new vocabulary and different pronunciation. Now in the U.S., she notes that she is able to receive more immediate, direct feedback on her English and is exposed to other voices and accents:

> Coming here, I can physically talk with the people and they can physically, straightly say what kind of English I'm speaking. So, yeah. That's why the environment change is good for me. Sometimes it's kind of stressful because I cannot express but most of the time I'm like "I'm really happy to come here"... The biggest thing is they comment about my English, how do I speak. And listening to other peoples' English.

> RS also started learning English in middle school with limited exposure outside of class. In the classroom, the focus was only on form and meaning of the language taught by rote memorization. There was a clear lack of discussion in the classroom, which she notes has now changed to some extent. Beyond middle school and high school, RS's opportunities to further pursue her English language learning continued to frustrate her as she was told her English was wrong by those speaking different dialects of English.

As mentioned in the previous section, upon moving to the United States, RS comments on how limiting her social network to the Japanese community has limited her interaction, exposure, and use of English. She wants to become more competent in English and knows that

she needs more exposure in the English-speaking community as she strives for native-like

fluency. RS also remarks how much easier it has been for her daughter learning English in

school as she is exposed to more and has an almost automatic social network and ongoing peer

socialization through school. It is often the case that adults who migrate to their LX context need

to be more proactive (compared to school-age children) in seeking out exposure and

opportunities to practice the LX due to language socialization not being built into their lives as

much as those who are school-age; this is especially true in the U.S. and several Western

countries. I suggest that this contrast in socialization experience for school-age learners and adult

learners might be a reason why age of onset of acquisition is sometimes seen or reported as

significant in determining frequency of use of LX, self-perceived competence, and in

relationship to foreign language anxiety (Dewaele 2010). Again, this is susceptible to change

throughout the course of one's life and depends on one's attachment, such as a spouse whose

dominant language is LX. RS's L1 is still dominant due to more socialization in her L1 but she

considers this an ongoing process.

MR also experienced a very basic instruction of English in the foreign language

classroom. She continued to teach herself by reading academic books in English in her field

during college (due to a lack of books on the subject in Spanish). She needed to learn English to

pursue her PhD. Therefore, MR's motivation was primarily for her studies. Now in the U.S., she

wants to improve her informal English for more social reasons.

DC's language learning context started in school and continued while living in his target

language (TL) community for both French and English. French, his L2, became more developed

while living in France; even after living in the U.S. for several years, he still considers French,

his L2, stronger than English, his L3, in many ways. DC was exposed to English when working

with an American company in his L1 community before transitioning to the U.S. for work. DC's

motivation to learn English grew to include not only where he works but also where he lives.

All of these experiences and their variables (age of onset and context of acquisition,

cultural background, relocation, L1, number of languages learned, etc.) seem to have a

commonality: the factor of LX socialization in their language learning, motivation, acculturation,

and emotions. The relationship of socializing in the TL or LX outside of the classroom for

exposure to new vocabulary, pronunciation, and overall practice was noted by each participant,

often in relation to their acculturation and/or attachment to the language and culture.

Pavlenko (2005) found that "languages learned in natural contexts will be judged as more

emotional than those learned in formal contexts, regardless of age of acquisition or proficiency

level" (p. 173). This suggests that affect and culture-specific vocabulary including emotion

words are learned through ongoing peer socialization in natural contexts over formal contexts,

such as the language classroom.

Simply growing up in a multilingual community like MG, one might be naturally

exposed to different language and affective repertoires "by virtue of the fact that one language is

learned through interaction with parents and grandparents, and another through interaction with

peers" (Pavlenko, 2005, p. 230). This, thereby, results in these speakers being socialized into

different affective repertoires and ways of relating to others. As Pavlenko also suggests, these

observations of emotions as relational processes and variation call for further research into the

socialization of emotions and affective socialization. Dewaele (2010) states that "there is a

growing acknowledgement that social contexts of learning are complex, dynamic and

multilingual, and that people are concurrently negotiating and maintaining memberships and

identities in different communities" (p. 59).

Socialization is also a part of acculturation, where one might adopt an affective repertoire along with language or simply learn what is deemed appropriate in the new culture. This is a gradual process that unfolds according to the context. Attachments can be a significant factor in not only how comfortable one might come to feel using another language (often in another culture) but also the rate of adaptation and strength of emotional arousal in the LX. For example, RD from the BEQ, after living with a Japanese partner for six years in Japan noted how "his constant exposure to Japanese allowed him to notice important linguistic and cultural differences between the communication of emotions in English and Japanese" (Dewaele, 2010, p. 96). His partner, in this case, is a significant attachment and thereby affects emotions and perhaps motivation to notice and understand the linguistic and cultural differences. As Hammer (2016) suggests, "socialization with members of the host culture… is understood to link with emotions as part of the psychological acculturation process" (p. 8). This is especially strong with attachments that create emotional bonds. In other words, attachments that are developed in LX can move the LX use into the "personal sphere of individual attachment" and, thereby, are likely to result in a higher level of emotional acculturation by the individual (Hammer, 2016, p. 30).

Another factor to consider in relation to one's context and learning environment is *inner speech*. Resnick (2018) defines inner speech as "the activity of talking to oneself in silence" (p. 2). This should not be confused with private speech, or "audible self-talk," as inner speech acts as thoughts to oneself before they are verbalized whether in private or public. AC explained that her thoughts and dreams are in both of her languages but might change in dominance depending on the context or environment (Japan and U.S. in her case):

In thoughts, I'm trying to think in English. It means I can get more used to… for dreams, it's unconscious so most of the time it's… it's both languages, but I can say 60%

Japanese, 40% English in dreams. In thoughts I'm thinking English is more. Most of the time I think in English. [When I go back to Japan] the thoughts will be Japanese and it's going to be more but still thinking in English too.

The language use for inner speech being affected by place and people is common due to the change in exposure and frequency of use of the language. However, simply being exposed to the language more does not mean one is internalizing it. This is where attachments and acculturation again come into play to increase frequency of LX use and emotional attachment to the LX, thereby internalizing it. In Hammer's study (2017), results showed a positive correlation of acculturation with L2 use in inner speech: "bilinguals who acculturate to a higher level, operate in a majority L2-speaking social networks, and intend to remain in the UK indefinitely, use significantly more L2 across domains belonging to inner speech" (p. 1). MG explains that his language use for inner speech depends both on emotional resonance and on the context, such as being at school or not:

> [If] no words are going to come out, that's just Pulaar. Because it's me. Everything in me is Pulaar. And sometimes Wolof but I think it is Pulaar and Wolof, no French. If I need to do math, that's French. I can't [do] math in Pulaar or Wolof, just French. If something is getting out of the context, it's French. That's why I tell you everything depends on the context.
>
> Now if I'm at school [in the U.S.] and the teacher uses English and wants me to understand, I can't think in Pulaar or Wolof. I can just use my French to figure this out. I think in English and French. I'm using more French because if I hear one word, I need to figure out what this word is. I'm just going to figure out with French and use Google

Translate between French and English. That's why I tell you it depends on the context and where I am.

I'm using these three languages but Pulaar is the first, Wolof is the second, French is the third. But sometimes French can become the first.

As MG expressed, one's inner speech might switch based on requests of the learning environment, such as calculations or translations. According to Larsen et al., earlier immersion into the LX culture and environment is also linked to the LX becoming more prominent in one's inner speech (Resnick, 2018). Again, everyone's experience is different and this can not be so simply generalized to say that one's inner speech will change based on where we are or when we immigrate. Some might feel a stronger emotional connection to a language for any number of reasons, whether memories, attachments, imagination, etc. and thus use this language more often for their inner speech. Nonetheless, it is clear that the external environment is often a factor in language use for inner speech.

Considering Intrapersonal Factors: Personality, Perspective, and Identity

While interpersonal factors and the external environment are influential in one's language experience, it is also important to explore the intrapersonal factors in how multilinguals perceive emotions and identity in navigating their multilingual and multicultural lives. In this sub-section, I suggest that one's experience is at least partially formed by one's perspective and personality.

First, how does one define one's relationship with languages? Most of the participants define themselves as bilingual if they do not perceive themselves as having the competence to express themselves in other languages they have learned or are learning. For example, MR has studied French and is currently learning Nahuatl, a native language of Mexico, but she considers herself bilingual because she can only express herself in Spanish and English right now. Similar

to MR, I have studied Spanish and Swedish, but I am no longer able to communicate or express myself in those languages as they have become dormant from lack of use. Therefore, I consider myself bilingual.

It could be argued that the concept of fluency, self-perceived competence, and ownership of language might be more fluid as one adds more languages to one's repertoire. Dewaele (2010) reported a "highly significant effect of the number of languages known on self-perceived competence in these various languages" (p. 80). To explore the relationship between ownership of language, the concept of fluency and self-perceived competence, however, would require further research.

Moate and Ruohotie-Lyhty's study (2017) distinguished experiences of Finnish student teachers into two general patterns: *bilingualism as striving* and *bilingualism as a gift.* Those who saw and experienced *bilingualism as a gift* more easily accepted their bilingual identity, were aware of the opportunities and doors that it would open and, therefore, found greater continuity and stability in their language learning and life experience. In contrast, the perspective and experience of *bilingualism as striving* focused on an imagined but not yet realized English language identity; they were working toward a goal and had the desire but did not yet feel they belonged or could claim or fully embrace that identity. This variation in experiences naturally caused different feelings and emotions. Those who were striving were ridden with more self-criticism and doubt; their narratives were more "intoned with emotions of sadness, guilt and despair" (p. 220). Those who considered it a gift generally expressed more positive emotions such as "pride, enjoyment and satisfaction" (p. 220). There are aspects of these very generalized patterns that I also found in interviews: some easily take on the new language and role while others are filled with more anxiety as they try to find ways to belong.

It, therefore, seems that personality traits themselves are a big factor in how one approaches and perceives one's own language learning experience. For example, MG's free-spirited approach to using languages might have something to do with his background but is also, in large part, determined by his own curiosity, playfulness, and desire to communicate.

Being Oneself: Identity and Feeling Different

How one feels while using each language and how one feels about each language is often influenced by one's linguistic background and attachments to the language and culture, whether positive or negative. Some multilinguals might also feel like they take on a different self when switching languages. According to Pavlenko, these perceptions of different selves might be categorized from four main sources: "(1) linguistic and cultural differences; (2) distinct learning contexts; (3) different levels of language emotionality; (4) different levels of language proficiency" (Dewaele, 2010, p. 24).

Several participants in this research expressed that although they may switch roles with languages (in different domains), or switch languages based on who they are with, their core identity remains the same. For example, MG feels that he is the same self in all languages, and although his core identity is Pulaar, all languages contribute to his identity like many layers of an onion: "I am Alpulaar but every new language is a benefit, a bonus."

Similar to MG, AC maintains her same sense of identity regardless of language: "Whenever I speak in Japanese, English, or Chinese or something, I believe that I'm talking like myself… Because sometimes I don't even remember which language that I've spoke." She explains that rather than her identity, she switches grammar systems in her mind because the languages are so different: "Most of grammar in Japanese and English are opposite. That's why when I start speaking English I think I'm changing a switch in myself." Likewise, Didi from

Dewaele (2016) said that he does not feel different when switching languages: "I feel I am the same person. Using the language as appropriate is the art of living as bilingual" (p. 100).

MR also said that she carries her same identity but might act differently depending on the situation, where adding a different language is just a casual, normal part of it: "I act different in different situations and just add a different language." Jacob from Dewaele & Nakano's study (2013) expressed that mainly his confidence is influenced by his proficiency level in the languages: "my personality remains basically the same but I am less confident of my ability to express myself in my second and third language" (p. 116).

I, on the other hand, feel quite a shift in myself and what I express, but this is especially noticeable when physically relocating between linguistic environments rather than simply in using either language. The difference is also perceived by others, especially my husband who noticed that I seemed more free and even more childlike in an English linguistic environment compared to when I was in Senegal using Wolof (requiring a distinct affective repertoire). My experience relates somewhat to Linda in Koven's (2004) study: "she came across as a different person in each language… Linda acknowledges that she has different personae in her two languages… she is also perceived differently by her interlocutors…" (Pavlenko, 2005, p. 130). These 'double selves,' as Koven suggests, or 'different language selves,' are likely explained by the distinct affective repertoires in our varying linguistic environments. These different selves might also be distinguished as an older self and newer or less experienced self if each language is related or tied to a different stage of life that does not feel as fluid (in Hammer, 2016, p. 32).

RS expressed that, in her experience, one language and self becomes more dominant depending on where she is (specifically Japan or the United States). Interestingly, she noted that her American self feels more dominant in Japan while her Japanese self is more dominant while

in the U.S. This could be a way of finding balance and consolidating for the self and language, which otherwise might experience attrition due to less exposure and frequency. However, this is also likely because influence from each self or parts of our identity become more noticeable when put in a place of contrast.

Participants in Wilsen's (2008) study from the BEQ data frequently responded with "feeling more confident and being more outgoing in a foreign language" and noted "changes in body language, mannerisms and voice… deeper levels of disguise through references to putting on a mask or taking on another role" (in Dewaele, 2010, p. 24). Some might feel a sense of liberation. For example, I found myself to be more assertive in the context of using Wolof; the openness of conversation and prevalence of teasing in the social environment was likely a large part of this. In other words, as Dewaele & Nakano (2013) explain, "it could also be argued that Koven's bilinguals behaved different in their two languages, not because of the language itself, but because of different sociopragmatic rules in the French and Portuguese speech communities" (p. 117). Perhaps even more salient is this quote from Susan Ervin's first study in 1964:

> It is possible that a shift in language is associated with a shift in social roles and emotional attitudes. Since each language is learned and usually employed with different persons and in a different context, the use of each language may come to be associated with a shift in a large array of behavior. (in Grosjean, 2010, p. 125)

Panicacci & Dewaele (2018) also looked into the relationship of language use with different topics and if this affects how people feel. Participants in their study "stated they felt less different when using the LX to talk about a neutral topic… and progressively more different when discussing a personal topic… and an emotional topic" (p. 247). As can be seen from these

examples, there are many factors in how and why one may or may not feel different using different languages.

CONCLUSION

In her most recent book, Andrews (2019) quoted de Bot (2009) saying that "languages of a multilingual interact constantly and continue to change due to variation in use and contact among the languages" (in Andrews 2019, p. 99; from de Bot, 2009). The same could be said for the complex relationships of factors of a multilingual that are continuously interacting and changing. From both research and experience, we know that language acquisition and use are dynamic and receptive to change throughout one's life. Since there are exceptions to every generalization or pattern found and no factor can be truly isolated, this paper serves as one more step to a whole systems approach of looking at one's multilingual experience.

Implications for Teaching

According to Pavlenko (2005), "foreign language classrooms rarely teach learners how to perform affect" leaving language learners "unprepared for the real world" (p. 144). As language teachers, we must strive to become the exception. Pavlenko suggests that we can address issues of LX detachment in language classrooms "by focusing attention on the learners and on issues relevant to their lives, and by encouraging them to discuss these issues in their second language" (p. 145). Beyond creating a positive classroom environment, making TL/LX content relevant to students' daily lives will encourage them to take ownership of the language. It may even enhance their motivation, if not emotional resonance and attachments, with the language as they bridge the full context of acquisition between the classroom and the rest of their natural social environment. Building a connection from the classroom to the learners' social and emotional environment will make the learning more porous and useful.

In his study, Bown (2009) found that "emotions played a pivotal role in students' social relationships, thoughts, actions and decision-making… affected their cognitive appraisals of tasks, teachers, the learning environment and themselves" and therefore concluded that "intelligent processing of emotions can have a positive impact on the experience of language learning" (in Dewaele, 2010, p. 23). Offering the opportunity to speak about and process personal and emotional topics in the classroom through authentic interaction might at first be uncomfortable but will widen learners' possibilities to use the language more frequently and intelligently. This includes introducing learners "to the communication of various emotions in the LX, including both positive and negative emotions" (Dewaele, 2010, p. 219). A crucial part of successful communication is "being able to judge the interlocutor's emotional state" not just in words but body language, vocal cues, and other factors of context (Dewaele, 2010, p. 220). One way to do this both in and outside the classroom would be to process and examine the language learning experience itself to assist learners' understanding of their own emotions while also developing the language required to express and discuss them. As I and several participants of this study have found, reflecting on one's language learning journey can be enlightening in several ways.

Teaching communication of emotions is part of communicative competence and will allow learners to express themselves better as proficient LX users, develop their emotional 'intercultural competence,' and, therefore, be less anxious overall. Emotion-free classrooms would not do this. In fact, Dewaele (2010) found a pattern that "instructed learners felt less competent and more anxious than mixed and naturalistic learners" (p. 217). Finding a way to encourage a mixed context of acquisition from the classroom would be key.

On a related note, another goal for language teaching is to reduce foreign language anxiety (FLA) as much as possible, as FLA may result in frustration and lack of motivation to continue (Dewaele, 2010, p. 23). Since one factor of FLA is comparison to others' proficiency, we must consider how to create not only a positive but *supportive* learning environment. As Byram (2009) points out:

> … foreign language teachers should be encouraged to stimulate 'tertiary socialisation' among the learners, namely to 'help learners to understand new concepts (beliefs, values and behaviours) through the acquisition of a new language, new concepts which, being juxtaposed with those of the learners' other language(s), challenge the taken-for-granted nature of their existing concepts' (in Dewaele, 2010, p. 220).

This understanding of their multicompetence can encourage pride among multilingual learners while also encouraging support and understanding between the learners in their competencies. It also stimulates the view of complexity as an advantage.

Limitations and Considerations for Future Research

Where many bilinguals are in fact multilinguals, much of the research only looks specifically at processing the first two languages; less than half of the sources reviewed in this paper specifically examined or considered the processing of more than two languages. This, along with the inconclusive outcomes of studying speed and time course, would call for further research. I would also suggest that more research be done in the line of thought towards translanguaging (allowing words to be activated from a unitary language repertoire rather than language-specific subsets). Further, I would examine if and how translanguaging affects the models and thoughts above on language processing.

Monolingual bias, where the monolingual brain or context is considered the norm, was mentioned in several of the studies and resources as something to be considered as we move forward in this field. According to Andrews, "monolingual is the exception, not the rule" (2019, p. 8). Yet Andrews (2019) also notes that "a number of fMRI studies focus only on monolinguals, or at least involve stimuli from only one language" (p. 142) while those that do use bilingual or multilingual subjects are often missing a better understanding of subjects' proficiency in each language.

Beyond the monolingual bias in research, there is also more research done on bilinguals than multilinguals, while also focusing on those whose L2 is English. Only two of the five participants in my study identified themselves as multilingual. The remaining three consider themselves bilingual because, although they study other languages, they feel they can only express themselves in two of them. The BEQ and several other studies cited are also limited by the language used with subjects: English. The same goes for the research done for this paper; interviews were mostly completed in English (Wolof as the exception), making this a general requirement.

After reading more research, I found a severe lack of representation in populations from African and Central and South American countries. There is a clear Western bias with some representation from Asian populations. To address this, I would conduct further research and include a questionnaire to acquire representation of multilingual experiences from a greater variety of cultures and languages beyond Western and Eastern countries and into the Middle and Southern continents and countries. See appendix for a potential questionnaire adapted from the BEQ.

Overall, this research helped me and other participants look at our language experience in a new light. Many of the participants noted how interesting it was for them to be asked questions they hadn't considered about their language learning journey. This reflection and inquiry process also allows us to better connect with and be aware of the emotional terrain of language, culture, and identity as it continues to change throughout our respective life trajectories. Therefore, future work might also include the proposal of a systems model as a way of exploring one's experience as a bi- or multicultural multilingual in both research and in the classroom.

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Appendix

Below is an example of a questionnaire survey that might be used for future research, adapted from the BEQ.

Navigating Multiple Languages Survey: Allie Polzin

This survey was adapted from the Bilingualism and Emotions Questionnaire (Pavlenko and Dewaele 2001-2003)

1. Please choose one of the options listed below to indicate how you would prefer me to proceed with the information you supply

◯ Give you credit using given name if I cite you in my work

◯ Use your responses but keep your name and other identifying information confidential

◯ Use your responses in analysis but do not quote them in any final work

2. All information will be kept confidential. If you would rather not identify yourself, please use random initials and a number, e.g. PC24

Name	
Email Address	
Sex	
Age	
Education level (highest diploma or degree)	
Which ethnic group/community do you belong to or most identify with	

3. Which languages do you know and in what order were they learned or acquired?
Answer as applicable and list first five languages if you know more.
These are the languages you will be using for the following questions.

1st Language (L1)	
2nd Language (L2)	
3rd Langauge (L3)	
4th Language (L4)	
5th Language (L5)	

4. At what age did you start learning each language?

L1 [   ]

L2 [   ]

L3 [   ]

L4 [   ]

L5 [   ]

5. Did you learn these languages outside of school, at school, or **both?** (please answer for each language separately)

	Outside of School	At School	Both/Mixed	N/A
L1	○	○	○	○
L2	○	○	○	○
L3	○	○	○	○
L4	○	○	○	○
L5	○	○	○	○

6. Which do you consider to be your **dominant** language(s) at this point?

[   ]

7. What language(s) do you use **at home**? What language(s) does your **partner** speak?

[   ]

8. On a scale of 1 (least proficient) to 5 (fully fluent), how do you rate yourself in speaking, understanding (comprehension), reading, and writing for each language?

	Speaking	Comprehension	Reading	Writing
L1	☐	☐	☐	☐
L2	☐	☐	☐	☐
L3	☐	☐	☐	☐
L4	☐	☐	☐	☐
L5	☐	☐	☐	☐

9. How frequently do you use each of the languages and with whom?

Never = 0, every year = 1, every month = 2, every week = 3, every day = 4, several hours a day = 5

	With whom	Frequency
L1		
L2		
L3		
L4		
L5		

10. How confident or anxious do you feel using each language with different people?

	With strangers	With friends	With family	With co-workers
L1				
L2				
L3				
L4				
L5				

11. Which language(s) do you use for mental calculations/arithmetic? (Click where appropriate)

	Never	Rarely	Sometimes	Frequently	All the time	N/A
L1	○	○	○	○	○	○
L2	○	○	○	○	○	○
L3	○	○	○	○	○	○
L4	○	○	○	○	○	○
L5	○	○	○	○	○	○

12. Do you switch between languages within a conversation with certain people? (Click where appropriate)

	Never	Rarely	Sometimes	Frequently	All the time	N/A
When speaking with friends and family	○	○	○	○	○	○
When speaking with strangers	○	○	○	○	○	○
When speaking in public	○	○	○	○	○	○
At work	○	○	○	○	○	○

13. How would you rate the **likelihood** of using a language based on the **topic**?
0 = never been used for these topics, 1 = not likely, 2 = maybe, 3 = likely, 4 = very likely

	Personal topics	Emotional topics	Professional topics	Neutral topics
L1				
L2				
L3				
L4				
L5				

14. Using just **one adjective** each, how would you describe each of your languages? (ex. colorful, rich, poetic, emotional, cold, etc.)

L1	
L2	
L3	
L4	
L5	

15. When you are **angry**, what language do you typically use to express your anger?

	L1	L2	L3	L4	L5	N/A
When alone	○	○	○	○	○	○
When talking to friends	○	○	○	○	○	○
When talking to parents or relatives	○	○	○	○	○	○
When talking to partners or children	○	○	○	○	○	○
When talking to strangers	○	○	○	○	○	○
In written form (letters or emails)	○	○	○	○	○	○

16. If you **swear** in general, what language do you typically swear in? (Click where appropriate)

	Never	Rarely	Sometimes	Frequently	All the time	N/A
L1	○	○	○	○	○	○
L2	○	○	○	○	○	○
L3	○	○	○	○	○	○
L4	○	○	○	○	○	○
L5	○	○	○	○	○	○

17. Do **swear** and **taboo words** in your different languages have the same emotional weight for you? (Click where appropriate)

	Not strong	Little	Fairly	Strong	Very strong	N/A
L1	○	○	○	○	○	○
L2	○	○	○	○	○	○
L3	○	○	○	○	○	○
L4	○	○	○	○	○	○
L5	○	○	○	○	○	○

18. What language do you express your **deepest feelings** in?

	L1	L2	L3	L4	L5	N/A
When alone	○	○	○	○	○	○
When talking to friends	○	○	○	○	○	○
When talking to family	○	○	○	○	○	○
In written form (diaries, letters, emails)	○	○	○	○	○	○

19. Do your languages have different **emotional significance** for you? If yes, how do you see this significance for each language? Is one more appropriate as the language of your emotions than others?

20. If you write in a **personal diary** - or were to write in one - what language(s) do you or would you use and why?

21. If you form sentences silently (**inner speech**), what language do you typically use? (Click where appropriate)

	Never	Rarely	Sometimes	Frequently	All the time	N/A
L1	○	○	○	○	○	○
L2	○	○	○	○	○	○
L3	○	○	○	○	○	○
L4	○	○	○	○	○	○
L5	○	○	○	○	○	○

22. Does the phrase "**I love you**" have the same emotional weight for you in your different languages? Which language does it feel strongest in?

23. Do you have a preference for **emotion terms** and **terms of endearment** in one language over all others? Which language is it and why?

24. Do you **identify** greater with one or more of your languages or do you see each language (and perhaps culture) as contributing to your identity?
i.e. Is there one language that feels more as your core [identity] or are they balanced?

25. Do you feel like a **different person** sometimes when you use your different languages?

26. What does "**language**" mean to you?

27. Do you have any other **comments and/or suggestions** for the author of this questionnaire?