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In Between Language and Health:
Children's experiences brokering language, culture, and information for health

A dissertation submitted in partial satisfaction of the
requirements for the degree Doctor of Philosophy
in Education

by

Krissia Martinez

2019

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ABSTRACT OF THE DISSERTATION

Children's experiences brokering language, culture, information, and much more for the purposes of health.

by

Krissia Martinez

Doctor of Philosophy in Education

University of California, Los Angeles, 2018

Professor Marjorie E. Orellana, Co-Chair

Professor Kimberly P. Gomez, Co-Chair

In recent decades the term child language brokering has been used to describe the linguistic and cultural mediation and work of bilingual children to help others communicate. This dissertation explores health related language brokering experiences of seven middle school aged language brokers. The data analyzed in this dissertation was gathered through individual and family interviews. This dissertation explores the places, people, activities, and content child language brokers encounter in the health domain. This dissertation also explores unique aspects of language brokering linked to health, including: brokering language for health supplements,

younger siblings, adolescent health, schooling purposes, and the experience of being a second generation language broker. Finally, this dissertation provides a closer look at the fluidity of language, culture, and roles embedded in language brokering for health.

This dissertation is guided by ideas grounded in language brokering research, sociocultural learning theory, literacy studies, health, and health literacy research. These components guide the work and discuss findings. For language brokering research, this study contributes to understanding of child language brokers' role and experiences, particularly for brokering language and culture linked to health issues. For education research, this study highlights the intellectual complexities of brokering language for health, and also reveals that child language brokers from Generation Z are more likely to have a parent who is also a language broker. Consequently, current child language brokers may already be relying on their parent language brokers as linguistic and cultural resources. This dissertation also provides insight for public health and health research, in regards to the health experiences, practices, and resources of children of immigrants and populations with limited English Proficiency (LEP).

The dissertation of Krissia Martinez is approved.

Carola E Suarez-Orozco

Michael A Rodriguez

Marjorie E Orellana, Committee Co-Chair

Kimberly Gomez, Committee Co-Chair

2019

DEDICATION

For my family, Baltazar Martinez, Margarita Martinez, Tuly Martinez, and Marcelino Plascencia.

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Family

My father, Baltazar, spent most my childhood driving me to and from school, and school functions. During school breaks he let me tag a long with him to work, and together we drove in his truck through many neighborhoods and learned about our world and this country. During my undergrad he visited me every Sunday at college, he took me and my mother out to lunch on those Sunday visits, and made sure that I was ready for the next week of school. During my graduate school he called me regularly, asking me questions a father asks to make sure their child is doing fine. These calls were filled with dad jokes, news stories he had read about, updates on my beloved Miloh, and ended with his blessing and a reminder that he loves me and believes in me. Thank you Dad.

My mother, Margarita, taught me the value of education for our world, and for us as immigrants, and as women. One of my earliest memories is my mother and I visiting local schools. I did not know it at the time, but she was looking for the right school for me. I have many memories of my mom leading the way, carrying a folder of papers. My mother led the way to enroll me in school, carrying a folder of my documents and vaccines. She led the way to the immigration office to file for our temporary status petition, then for our permanent residency, and eventually for our citizenship. She never shied away from asking questions, or from a difficult task. It is her voice I hear in my heart and mind that always reminds me to keep going. My mother is a strong woman, with an incredibly gentle and nurturing soul. Thank you for your love, wisdom, and strength.

My sister, Tuly, laid the steps in which I followed to higher education. She worked multiple jobs, held an internship, and commuted between community colleges to get her degree. She graduated college, then graduate school. Tuly cares about the world, social justice, and her loved ones- and everything she does reflects these values. She gave me a place to stay so that I could pursue this degree, she gave me tender love and care when I felt scared and overwhelmed, and together we shared many laughter and tears throughout this process. This degree was not possible without you. Thank you for your love, for protecting me, for picking me up and helping me dust myself off, for encouraging me, and being a guiding light when I feel a little lost.

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challenges that I will encounter in my work and career, and balanced with encouraging and inspirational wisdom.

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VITA

Krissia Martinez

EDUCATION

B.A., Latin American Studies and Legal Studies
University of California, Santa Cruz

Fall 2006-Spring 2011

SELECTED PRESENTATIONS

Richmond, VA

Martinez, K. and DeLeon, R. Translating Trauma: Developing Counter Spaces Within a College Course
National Association of Ethnic Studies
Richmond, VA March 8-10

Spring 2018

Washington, D.C.

Martinez, K. and Orellana, M.F. Child Language Brokers in Health Care
American Education Research Association
Washington, D.C. April 8-12.

Spring 2016

Berkeley, CA

Martinez, K. Language Brokers and Health Insurance.
9th Summer Institute on Migration and Global Health
Berkeley and Oakland, CA. June 22-25.

Summer 2015

Los Angeles, CA

Martinez, K. Language Brokering in Health. University of California Los Angeles 2nd Annual Research & Inquiry Conference.
(Nominated for Outstanding Poster Presentation Award)
Los Angeles, CA. May 24.

Spring 2015

Berkeley, CA

Martinez, K. Immigrant Youth, Language, and Health.
8th Summer Institute on Migration and Global Health
Berkeley and Oakland, CA. June 16-19.

Summer 2014

Mainz University, Germany

Martinez, K. and Orellana, M.F. Immigrant Youth as Family Health Brokers. Presentation at the International Conference on Non-Professional Interpreting and Translation (NPIT2) Gernersheim, Germany. May 29-31.

Spring 2014

SELECTED PUBLICATIONS

Journal Articles:

Martinez, K., Orellana, M. F., Murillo, M. A. and Rodriguez, M. A. (2017), Health Insurance, from a Child Language Broker's Perspective. *International Migration*, 55: 31–43. doi:10.1111/imig.12380

Martinez, K., Orellana, M. F., Murillo, M. A. and Rodriguez, M. A. (In Progress), Mapping the Health Domain Through the Experiences of Child Language Brokers

Martinez, K. and DeLeon, R. (In Progress) Exploring research through epistolary writing in undergraduate education.

Book Chapters:

Orellana, M.F., Franco, J., Johnson, S.J., Martinez, K., Rodriguez, B., Rodríguez-Scheel, A., Rodriguez, L. (In Press) Transforming Practice in Multilingual Communities: Towards a Transcultural Pedagogy of Heart and Mind. In P. Pacheco and Z. Morales (Eds.) Transforming schooling for second language learners: *Policies, pedagogies and practices*. Charlotte, NC: Information Age

White Papers:

Myung, J., Martinez, K., and Nordstrum, L. (2013) *A Human Capital Framework for a Stronger Teacher Workforce*. The Carnegie Foundation for the Advancement of Teaching.

Myung, J., and Martinez, K. (2013). *Strategies for Enhancing the Impact of Post-Observation Feedback for Teachers*. The Carnegie Foundation for the Advancement of Teaching.

AWARDS & FELLOWSHIPS

Awarded Dissertation Year Fellowship University of California, Los Angeles	September 2017 - June 2018
Awarded Collegiate University Teaching Fellowship University of California, Los Angeles	September 2016 - June 2017
Graduate Research Mentorship Fellowship Recipient (Academic Year) University of California, Los Angeles	September 2014 - June 2015
2015 School of Education Teacher Assistant of the Year University of California, Los Angeles	June 2015
Ford Pre-Doctoral Fellowship, Alternate and Honorable Mention	March 2014

INTRODUCTION

My family immigrated to the United States very early in my life, and as immigration researchers have consistently found (Suarez-Orozco and Suarez-Orozco, 2001, Suarez-Orozco et al 2015, Guan and Orellana, 2015), my sister and I adopted English and American culture more quickly than our parents. I never thought much about the interpreting we did, until I came across an article on child language brokering (Orellana, 2001). The term child language brokering is used to describe children of immigrants who “interpret and translate between culturally and linguistically different people and mediate interactions in a variety of situations” (Tse, 1995). As a child, I did not think of people as being culturally and linguistically different, nor did I perceive interpreting or translating as mediation. Encountering the term *language brokering* as an adult, created a chain reaction, and many of my personal experiences suddenly clicked together and made sense to me. I did broker language. I did mediate language and culture, and also ideas, humor, emotions, and important events in my family’s life. Each of these experiences, left me with something. Each experience helped inspire me and supported not only my linguistic and cultural development, as many studies in my literature review posit, but also my personal development and view of the world.

I brokered language for my father, a self-employed professional painter and handyman, throughout my life. Today, I find myself with substantial business management and home maintenance knowledge that I gathered from brokering language for my father. I understand that house painting is a multistep process (which most people overlook), and I can carry on conversations with contractors and realtors about materials and labor. I also have very specific and solid preferences about paint colors and home design, which I am not sure I would, had I not brokered language for my dad and tagged along with him to work. The knowledge behind the

things I learned from my father's work is based in mathematical, mechanical, legal, craftsman and scientific knowledge. How did I learn these things? I was never tested on the information; my father never made me study, nor was I remotely interested in home improvement business. Still, the knowledge remains in my brain, readily disposable. Parts of my brain, like muscles I have not used in a short while, get to work when I notice chipped paint or try to calculate the cost of square footage. My personal experience led me to wonder about other children like myself, who brokered language for their families. What might a language broker who mediated legal language have taken with them from their experiences? What about a language broker who helped with tax information, or cooking instructions, or any of the other things that I know my sister and I brokered language for occasionally?

I pursued graduate school to learn more about child language brokers and was fascinated by literature that examined children like me, adults like me, and families like mine. I am sure one of the reasons language brokering literature was exciting for me, was that for the first time I really identified with something and someone in academic research. I had hoped to find that language brokering was a piece of me that not only made me *me*, but it also made me special. In learning about language brokering and researching all kinds of issues on the topic, I found that many studies focused on the potential issues of children brokering (see: Kam, 2011; Martinez et al., 2009), and I also found little focus on specific areas. For example, there are no studies on language brokers' experiences brokering for home improvement. My own experience had made apparent to me that domains (settings and contexts) are critical to consider in language brokering and educational research. If years of language brokering home maintenance can lead to life-long lasting knowledge on the subject, is it possible that brokers who assist consistently in other

contexts develop expertise in those subjects? Does brokering for credit card or banking purposes impart financial literacy skills?

Exploring the contexts of language brokering experiences seems to be the natural progression of child language brokering scholarship, which to date has mostly focused on the practice as it occurs- across everyday life. Child language brokering research has documented children brokering language in many different domains, i.e.: education, health, and employment (Orellana, 2009; Morales and Hanson, 2005). This might be one reason that language brokers' presence and contributions lack recognition from institutions; language brokers blend into the background of the cultural and linguistic exchanges that happen everyday and everywhere in our transnational and globalized world.

This study seeks to contribute to child language brokering literature, and focuses on one specific domain: health. In focusing on this domain, this study illuminates the presence, role, and contributions of child language brokers in making health information accessible- not only for their families, but also for practitioners, health insurance providers, and other health related organizations and services. Studying language brokering in the health domain also provides the opportunity to engage with some of the research and common attitudes towards children participating in health care- mainly the anxieties that children are being exposed to uncomfortable information or being placed in adult roles. The health context also unlocks the possibility to engaging with research on health literacy, which I posit throughout this dissertation is being practiced and adapted by language brokers.

Study Rationale and Background: Why study CLBs experiences in the health domain?

Sandy: My mom had gone to the hospital (to emergency room) because she was bleeding nonstop and so she had a doctor check up (post emergency room treatment)... And I had

to explain to her that she had a cyst and I didn't know what that was. So, I told her, 'que tienes un cyst.' She's like, 'pues que es un cyst?' And I am like, I don't know.

Interviewer: Did they (medical staff) try to help you figure it out? Or try to look it up?

Sandy: No she (doctor) did try to looking for a translator, but they didn't have any, I guess, 'cause she was just, I don't know, she couldn't at the moment. But then, that's when she rescheduled to talk about it...

Sandy, a 12th grade high school student, participated in a pilot study I helped conduct in 2014. The study explored high school aged youth's experiences language brokering in the health domain. Sandy reported being the primary language broker for her mother, Ms. Ray, and having extensive experience translating in health situations. The excerpt above details an event in which Sandy interpreted for her mother's doctor appointment, but encountered an unfamiliar term: cyst. As a result of the language barrier, the doctor tried to find a health interpreter, an unsuccessful effort that led to a rescheduled appointment. This series of events is a common occurrence in American health care, which has a significant disconnect between the number of certified health/medical interpreters and limited English proficient (LEP) patients. In California, the state with the largest LEP population (Batalova, 2015), 605 certified medical interpreters serve 4.6 million Spanish speakers; 282,000 Vietnamese speakers; 228,000 Philippine-Tagalog speakers; and 35,000 Hmong speakers (Gonzales, 2015). In addition to a shortage of certified interpreters, LEP patients have a higher probability of being uninsured and undocumented (Rodriguez, et al., 2009; Gonzales, 2014) and thus lack regular access to health care. This means many LEP patients' health care needs to go unattended until they need emergency care. A combination of limited health care access (for LEP patients) and limited language resources lead practitioners to rely on informal interpreters, like language brokers. These factors help explain why Ms. Ray's

(Sandy's mother) doctor appointment was scheduled as a result of an emergency room visit, and unfortunately, a lack of interpreter and Sandy's knowledge of cysts, prompted a third appointment.

Sandy's language brokering example seems to support the notion that informal interpreters may be ineffective (Flores et al., 2005); yet, exploring this encounter from a different angle uncovers something unexpected regarding Sandy's experience.

Regarding 1st doctor appointment, post ER:

Interviewer: What was the doctor's reaction? Were they friendly? Were they annoyed?

Sandy: They were friendly. They were very calm about it, which I appreciated it 'cause now that I know what it is, like now, I know it's something serious, and I know something like that would've panicked my mom.

Regarding 2nd doctor appointment, with interpreter:

Interview Moderator: So it just makes a lot easier (with an interpreter). When they're (interpreter) there, what's your role? What do you do?

Sandy: I just memorize, I guess. I try to learn, like cyst, quiste, or obesity, obesidad. So stuff like that...

Follow up discussion unveiled that Sandy observed the doctor's reactions and she projected what the patient's experience might have been if the doctor had not been calm. Sandy's projection of how her mother might have panicked is an interpersonal skill that demonstrates empathy and cultural competency. The ability to perceive and observe the manners of practitioners and patients is particularly important because how patients perceive they are treated is important for their health. Sandy also shares that she *now* knows what a cyst is, and that when an interpreter is present she *tries to learn*.

Sandy's experience is a good example of how language brokers participate and learn when mediating language and culture for their families' health needs. Sandy's experience is incredible, but it is not a rarity. One in four K-12 students come from an immigrant household, and 50% of immigrants are estimated to be LEP (9% of the U.S. population). In other words, child language brokers make up a great portion of the student population. Given the limited language accessibility in health care services, there is great probability that many K-12 students are language brokering for health purposes. Unfortunately, the education field knows little about this student population's health language brokering experiences, a social issue that merits examining not only because it affects a significant portion of the student population, but because education and health are very much interrelated. Educational attainment increases the skills and knowledge needed to make appropriate health care decisions and obtain employment that provides health care benefits, ultimately affecting health outcomes; and poor health can impact a student's ability to participate in education (Cutler and Lleras-Muney, 2009; Dewalt, et al., 2004; Robert Wood Johnson March 2013).

Despite the critical relationship between health and education, there is little research on the health skills and knowledge, referred to as health literacy, of the K-12 population. The most recent national health literacy assessment was produced 13 years ago as a part of a larger project known as the National Assessment of Adult literacy (NAAL) and only considered a portion of the K-12 aged population, 16-18 year olds. NAAL found that only 8 percent of 16-18 year olds had proficient health literacy. This study considers the health skills and knowledge of an important segment of the k-12 population: the children of immigrants who serve as child language brokers.

Research Aims

Overarching Research Aim: This study aims to explore and illuminate the places, people, activities, content, tools, and in general the context child language brokers encounter in the health domain.

Research Questions:

- 1) What does the health domain consist of for language brokers? What settings, people, content, issues, tools, and resources do young people encounter when brokering language for health?
- 2) What kind of information do language brokers mediate for health? What skills or abilities do they develop and or practice to language broker for health purposes?

Overview of study proposal- Literature Review and Methods

The preceding chapter reviews research and literature concerning and relevant for child language brokering. First a review of child language brokering literature provides an overview of the phenomenon's emergence in scholarship and in relation to education and to the health domain. I also review legal and medical perspectives on the matter, which provide insights on the legal and medical concerns of children brokering in health, as well as the systemic limitations that produce a need for language brokers. The final section of the literature review considers health literacy as a possible resource for discussing and analyzing the activities, knowledge, and practices child language brokers encounter in the health domain. I also present concerns of the limitations of current health literacy definitions and draw from literacy research to suggest health literacy needs adapting to current ways health is practiced and managed in our society.

The methodology section discusses the community background, study design, participant recruitment, data collection, and data analysis processes, and introduces study participants. Prior to participant recruitment I volunteered at the site from which I recruited participants, a local

middle school in Los Angeles, California. Seven middle school aged language brokers participated in this study, and I was able to conduct a total of 22 interviews, three of which were with child language brokers' parents. The central method of data collection for this study is semi-structured individual and family interviews with language brokers and their families. I explain further in the chapter three, methodology, and the strategies that helped build rapport and accomplish thoughtful interviews with participants. The methods chapter also explains the domain analysis approach I enacted to explore the health context. Last, chapter three, section eight, provides an introduction and background to each study participant.

Study Contributions

One of the contributions this study offers is in depth examination of the experiences of children brokering language for health purposes. The participants in this study are in middle school, a population that is less studied in comparison to elementary school and high school ages. Elementary school ages are particularly popular among researchers across fields (psychology, education, health) as they are the ages in which foundational knowledge for language, literacy, math and science occur. High school ages, are also critical as the adolescent years are thought to be the jump off point to adulthood. Middle school ages, roughly ages 11-14, is a nominally healthy time span.

Current language brokering literature focuses on the contributions language brokers make to immigrant families, and discuss less what institutions also gain from language brokers. By investigating the diverse ways language brokers mediate health information, this study seeks to elucidate the ways in which language brokers make contributions to health care institutions, organizations, and as one participant does, businesses. Similar to prior studies that have documented the challenges young people encounter when language brokering, this study also

considers the challenges that arise for study participants in health, and sheds light on the different skills and resources they use to respond to these challenges. Noticeably unique from other studies, more than one participant found their parents as key sources of linguistic, cultural, and emotional support. One participant in specific, received language brokering support from her mother, who is also a language broker.

Finally, this study aims to offer a unique exploration of the out of school literacies and learning opportunities found in brokering language for health purposes. Literacy studies have aimed to expand the definition of literacy, and there is an emergence of new and multiple literacies (Street, 1997). This study aims to make a contribution, however small, to the movement to expand and grow what health literacy means. More importantly, it is my hope that this study positions language brokering research and language brokers in the discussion and movement to innovate health literacy frameworks and research that is inclusive of culturally and linguistically different people.

LITERATURE REVIEW

During World War II a shortage of military interpreters created a language gap between German and Finnish soldiers in Finland. Finnish children closed this gap by interpreting for soldiers in concentration camps, for prisoners of war, and generally between German and Finnish military (Kujamäki, 2014). Kujamäki refers to these children as “fixers,” a term used to describe the translators/helpers that aided journalists in the Iraq war (Palmer, 2007). There is little difference between a child “fixer” and a child language broker- they both navigate two worlds separated by language and culture, and mediate these differences for others. In doing this, they negotiate the characteristics of the domain in which the worlds meet (war, education, health, etc.).

I begin with Kujamäki (2014) for three reasons. First, to make apparent that child language brokers have been a part of our modern world and contributed to the globalization of our societies for longer than we may realize or are comfortable admitting (more on this in section two of this chapter). Second, to highlight the invisibility of child language brokers in spaces we deem to be adult-centered. Similar to the invisibility of WWII child fixers’ in world history, child language brokers today contribute to the functioning of our society but their work remains concealed with labels such as “children that help their family.” Last, Kujamäki’s work highlights the interdisciplinary nature of CLB research. CLB research convenes scholarship from various fields, some unexpectedly (such as journalism and world history), to consider the linguistic and cultural intersections children mediate.

To explore what has been studied about children who broker language in the health domain, this chapter convenes research from the fields of child language brokering, education, law, and health. The first section of this chapter reviews CLB research in three subsections: 1a)

an overview of child language brokering research 1b) CLB research related to education and 1c) CLB research focused in the health domain. Subsection 1a, reviews CLB research and offers insight on the development in understanding and examination of CLB since 1995, and emphasizes the need to focus on specific domains. Subsection 1b, CLB research related to education, reviews education research on CLB and offers evidence of the academic aspects and benefits of language brokering. The final sub-section 1c, CLB research focused in the health domain, reviews what CLB research has uncovered regarding the experiences and roles of language brokers in the health domain.

The second section of this chapter, *Health laws, medical ethics, and medical implications*, pivots to examine the intersection of legal, ethical, and medical research and concerns regarding children interpreting in health. The third section, *Health Literacy & Literacy*, delves into health literacy and literacy. Health literacy is a critical component of this study's theoretical framework because it offers an alternative framing of the child language brokering experience in health. Yet, as I argue in section three, current framing of health literacy can be limiting.

1) Child Language Brokering Research

1a) Overview of CLB research

Interest in child language brokering has burgeoned across multiple fields of study (sociology, education, immigration) since Tse (1995) first introduced the term. The existing CLB literature can be catalogued in various ways, including by the ethnicity, language, and/or host country of language brokers. For example, Latino language brokers (Tse, 1995; Acoach & Webb, 2004; Love & Buriel, 2007; Weisskirch & Alva, 2002) and Asian language brokers (Tse,

1996; Wu & Kim, 2009; Hall & Sham, 2007; Hua & Costigan, 2012) in the United States and United Kingdom are at the center of many CLB studies.

Most research, however, is not aimed to distinguish brokers by ethnicity or language, but instead focuses on exploring specific social aspects of the phenomenon. For example, acculturation, psychological and emotional issues have been at the center of multiple CLB studies. Researchers have explored the relationship between child language brokering and psychological symptoms such as anxiety, depression, and stress (Love & Buriel, 2007; Buriel et al., 2006; Jones & Trickett, 2005; Villanueva and Buriel, 2010; Chao, 2006), finding that most language brokers experience some level of distress due to language brokering. This research is often linked to issues of parentification of children or role reversal (Portes and Rumbaut, 2001; Suarez-Orozco & Suarez-Orozco, 2001) and provokes discussion on the appropriateness of children brokering language for adults. Despite these stressors, some research suggests there may be benefits to language brokering, specifically related to acculturation and education- both of which are discussed in the following sub-section. Additionally, CLB studies have found that language brokers express pride and happiness about being able to help their families, and describe language brokering as a normal activity in their lives (Orellana, 2009; Cline, et al., 2010; Dorner et al., 2007).

While a significant CLB scholarship has aimed to document and study the social complexities of the phenomenon, less is known about how these complexities vary according to contextual factors. One of the goals of the proposed study is to contribute to CLB literature by considering the complexities, characteristics, possible stressors and benefits associated specifically to language brokering for health purposes.

1b) Language Brokering & Education

Education scholarship on child language brokering has been seminal in expanding and at times challenging the canon by which other fields view child language brokering. Orellana (2009) offers an educational perspective on CLB by merging sociocultural learning theory with anthropological perspectives (Rogoff, 1990; 2003), to offer insights on the cognitive consequences of language brokering. According to Orellana's framework (2009), sociocultural theory does not aim to limit the practices or abilities of children by age, but aims to understand the cognitive consequences of participating in certain activities, like language brokering. The language brokering phenomenon, apart from being politically and socially interesting, is exceptionally unique in that the basis of the practice naturally resembles a learning arrangement. To analyze the learning arrangement produced in brokering events, Orellana has drawn on Vygotsky's zones of proximal development (ZPDs)

The zone of proximal development is "the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers." (Vygotsky, 1978, p90). The ZPD is a central idea in sociocultural theory, and embodies the notion that an individual benefits most when they work with more expert individuals who can scaffold their development (Palinscar & Brown, 1984; Saljo, 2010). In language brokering, children mediate multiple languages and cultures, for example they can mediate Spanish, English and legal/financial/medical language. At times, brokers are more expert in language, literacy, and culture than the people they assist, and in other situations brokers are the novices. When brokers encounter a new word or unfamiliar information they may seek contextual clues, rely on their family members or other experts for support. In what can be described as a game of *Taboo*,

a game in which players are given a list of words they cannot use to describe another word assigned in their player's card, brokers and their "co-players" scaffold clues, offer related words, and gestures to make sense and understanding together.

In education, language and literacy have commonly been used as proxies for measuring cognitive development, and in recent decades there has been growing interest in the out of school literacy and language practices that may inform school literacies (Brice, 1986). This shift in education and literacy has spurred research on previously overlooked family activities, such as language brokering. Research that has considered the competencies afforded by language brokering include the work of Buriel et al. (1998) which reported a link between language brokering, biculturalism, and characteristics associated with improved self confidence and academic performance (measured by grade point average). Additionally, Buriel et al., found brokering in diverse settings (such as banks, government offices, and hospitals) enabled brokers to develop advanced language competencies. Similarly, Acoach & Webb (2004) found a link between language brokering and biculturalism, and links to acculturation, academic efficacy and grade point averages (which the authors argue can be positively impacted by level of biculturalism. Dorner et al. (2007) also found more complex language brokering was correlated with better standardized testing scores.

Currently, research indicates that the complexity and diversity of language brokered play the most relevant role in the academic and cognitive benefits of language brokering, presenting the possibility that domains offer different opportunities to practice distinctive skills. The proposed study intends to investigate the opportunities the health domain offers child language brokers, and is guided by the overarching research question- What do youth learn from language brokering in the health domain? This line of inquiry has not been explored in CLB research. The

following section examines what *has* been examined as far the experiences of CLBs in the health domain.

1c) Child Language Brokering and Health

The research reviewed in this section is gathered from a combination of studies focused on examining CLB in the health domain and studies that examined CLB experience, consequently collecting data from different domains including health. This research informs the aims of the proposed study by describing what existing literature has found in regards to the language brokering that occurs in health, including the challenges encountered by stakeholders (health practitioners and brokers) and highlighting was yet to be considered.

Language brokering studies that focus on the health domain have found the subject to cause anxiety for health practitioners (Cohen et al., 1999; Katz 2014). Research has found that health practitioners worry children may make medical decisions for their parents, and that interpreter errors or certain health information may emotionally burden children (Cohen et al., 1999; Katz, 2014; Green et al 2005). As mentioned in the introduction, limited language resources often influences practitioners' to overlook these concerns in favor of treating patients with translation help from children.

From a child language broker' perspective, the health domain also produces distinct challenges. In Orellana et. al's 2003 study, one language broker recalled a doctor prompting her to make decisions for her mother and having to frequently interrupt the doctor to explain to her mother what was happening. Language brokers interviewed in Green et al., (2005) distinguished between interpreting and decision making, emphasizing that their parents made medical decisions, although it is unclear if practitioners prompted this or brokers tasked themselves with ensuring parents made decisions. Other challenges include encountering unfamiliar vocabulary,

rushed appointments, and difficulty asking for clarification from health practitioners (Katz, 2014). The challenges of participating in a health encounter, arguably, differ from other domains in that they are greatly shaped by domain specific processes (i.e. making appointments and managing insurance) and content (i.e. medical terms). Thus, the domain possibly offers opportunities to develop skills not practiced in other parts of life, for example medical, scientific, and health vocabulary in two languages, or managing the expectations of a professional discussion.

Vasquez, Alvarez, and Shannon (1994) and Orellana (2009) offer rare transcripts of medical encounters with child language brokers. Vasquez et al (2009) highlights the linguistic capabilities of a young girl interpreting English and Spanish for a chiropractic appointment, as well as the coupled effort of the mother and doctor in prompting the young language broker throughout the interaction and their active tracking of her translations. Vasquez' transcript offers insight on the ways practitioners and parents direct/shape brokers participation, and bring to light that even within the health domain, more domains exist, regarding the different kind of health/medicine practiced (chiropractic, dental, vision, etc.).

In Orellana's (2009) transcript of a medical appointment, twelve-year old Brianna and her mother discussed the care of her two younger siblings with their doctor. Brianna actively responded to questions from the doctor by drawing on her own knowledge regarding the care her brother had received for a wound. Brianna also asked questions her mother had prepared her to ask before the appointment. These two encounters (Vasquez' and Orellana) complicate assumptions that child language brokers operate on their own in medical encounters and that the language brokering role in health is limited to translating. In reality, practitioners and parents direct language brokers and language brokers not only media the communication between

brokers and practitioners (by steering practitioners to include their parents in the discussion or asking clarifying questions) but also offering information that may be useful for treatment.

Most of the literature centered in the health domain focuses on the brokering that occurs in medical encounters between families and doctors or other health practitioners. Orellana et al. (2003) expanded this scope by documenting that youth also interpret medical letters and instructions, vitamins and health care products, filled out paper work and reports, as well as answered and made calls to clinics to make/cancel appointments at home. Katz (2014), the most recent study to focus on child language brokers in health, found that the broadened access to the internet has begun to change the ways children broker health at home by utilizing the Internet “to double-check comprehension, locate information about a health condition or treatment options, and map directions to health-care facilities.” Following this theme, the proposed study aims to continue documenting the various settings, stakeholders, tools (with special attention to tech) and content related to health that young language brokers engage with and consider the challenges and skill/knowledge development opportunities they hold.

2) Health laws, medical ethics, and medical implications – Varying perspectives on child language brokering

Government laws, health policies, ethical expectations, and medical needs all fuse together to create the conditions in which child language brokers, LEP patients, and practitioners collaborate in the health domain. This section reviews legal and medical perspectives concerning children interpreting in health. Unsurprisingly, law and medical perspectives are driven by concerns of interpreter error and social order. These perspectives offer insight into the anxieties surrounding children interpreting for health purposes. The fact that there are anxieties and concerns situated in law and medicine help support the need to examine language brokering in

health and its potential implications. Additionally, it is possible that language brokers may encounter legal issues or social concerns regarding their brokering in health.

Health Laws

Federal law requires health providers to offer equal access to health care under Title VI of the 1964 Civil Rights Act, this requirement is enforced by the U.S. Department of Human and Health Services (U.S. DHHS) - Office of Civil Rights (OCR). This legal requirement promotes equal access and protects patients from discrimination; for patients with language needs this law requires providers to offer appropriate language services. However, a lack of systemic support and enforcement (Smedley, et al., 2003) can make this requirement idle. According to the federal legal framework, a lack of language resources indicates an element of systemic discrimination, consequently implying that child language brokers in health is manifestation of discriminatory circumstance.

At the state level, the most notable (and possibly only) legislative effort to impede children from interpreting in health is California Assembly Bill 292 (2003). AB292 proposed to reject government funding to any health organizations that allow children (under the age of 18) to interpret California has the largest immigrant and LEP populations in the United States (Zong and Batalova, 2015) and serves as a critical foreground for issues of language access, meaning that approval of AB292 could set precedence. Senator Leland Yee, a former child psychologist, proposed AB 292 in 2003 and argued that “information may be beyond a child's comprehension, their ignorance or shame as an interpreter may lead to misinterpretations” (AB292, p.3). The proponents of AB292 argue that misinterpretations may lead to dangerous, traumatizing, inappropriate, and or life threatening-situations. The National Limited English Proficiency (LEP) Advocacy Task Force, lent support to the bill and stated that allowing children to interpret should

be prohibited because children lack training in ethics, confidentiality, and the subject matter being interpreted. The National LEP Advocacy Task force also stated that “using children as interpreters upsets family dynamics by inappropriately giving children decision-making authority” (AB292, p.4). Again, similar to the CLB research that found practitioners to worry about children making decisions, policy makers also worry decision-making and possible role reversal.

Opposition to AB292 has been mostly grounded in funding issues. The unknown cost of mandatory interpreters in every health care meeting makes it difficult for the state to prepare fiscally. The unknown cost of interpreters for practitioners, small clinics, and community health centers also concerned the ACLU (American Civil Liberties Union) that LEP patients may be turned away if interpreter costs are too high. Despite the moving public campaign Yee launched to push AB292 (Romney, 2003; Yee, 2003), and the bill’s passage in the Assembly Floor (June 3, 2003) and senate Judiciary Committee (July 1, 2003), AB292 has remained in the Senate Appropriation’s Committee Suspense File.

Legal issues greatly shape the way people interact with healthcare in America for example by protecting their rights or limiting their access to government sponsored health care. For language brokers, it is possible that one way in which law shapes their experience is by fostering the notion that their role as brokers is wrong. The language in AB 292’s actual bill text and the language used in the Bill’s campaign press described children interpreting as: dangerous, traumatizing, life threatening; regarding children’s abilities: ignorant and shame. Although no CLB research has found that brokers have encountered this kind of outlook, at least one language broker is familiar with laws that prohibit children from interpreting. Jasmine (from chapter 1), the language broker who brokered for her mother’s doctor appointment, shared that as a

volunteer at a local hospital she is not allowed to interpret for patients, “I know that I am not allowed to translate medical information because they (hospital) tell me that I could say the wrong things or that’s just not in my rules.” It is unclear what Jasmine meant by “my rules,” she could possibly be referring to her duties or hospital regulations. Jasmine’s experience suggests that other brokers may be encountering legal and organization regulations regarding that their language brokering- possibly imparting legal knowledge.

The major concerns fueling legal interest in barring children from interpreting are: 1) the social emotional implications of interpreting difficult information successfully or unsuccessfully as argued by proponents of AB292, and 2) the health consequences for people who receive inaccurate translations, just as Jasmine said the hospital fears. The former deals more with social issues, asking: is it socially acceptable for children to broker health information? The latter deals with medical implications- what are the risks of children brokering? These two issues are explored in the following sub-sections.

Social Concerns

“Under no circumstances should children be asked to interpret medical details for their parents. It appears to us to be unethical, unprofessional, uncivilised and totally unacceptable” (Rack,1982 p.199).

Phillip Rack’s 1982 book, *Race, Culture and Mental Disorder*, briefly discusses the use of child language brokers in health, deeming the practice greatly immoral. Rack’s stance on the matter seems to be representative of the medical sentiments on CLBs (Cline, et al., 2010). While the disposition of the medical and health fields on child interpreters is clear, there are few empirical studies that have examined the extent to which children participate as interpreters in health encounters and/or the attitudes of health providers, parents, or child language brokers on

the matter. Free et al (2003) considers bilingual young people's participation and experience in health encounters, and was conducted by researchers in the medical and health sciences. The two studies I review below demonstrate the contrast in experiences of brokers and practitioners in health encounters that take place in in medical spaces.

The broker experience

Free et al (2003) interviewed 77 bilingual young people (25 Vietnamese, 17 Bangladeshi, 18 Kurdish and 17 Eastern European participants). Similar to the CLB findings of Orellana (2009) and Katz (2014), Free et al (2003) found brokers thought their families felt proud of their ability to mediate in health (p. 532) and that they generally brokered for uncomplicated health issues. Brokers expressed enjoying being able to help their families, practicing their familial language, and benefits in self-esteem. Brokers in this study also expressed disadvantages to brokering, which included: being bored or pulled away from preferred activities to interpret, feeling frustrated or conflicted when they interpreted disagreements, unfamiliar or confusing information, difficult information that may upset relatives, awkwardness and embarrassment in learning sensitive health information or in giving parents directions. Free et al. (concludes that while the use of young bilingual people as health interpreters is not likely to subside soon, there are things practitioners can do improve the experiences for brokers and their families: speak/make eye contact with both patient and interpreter, opt for formal interpreter for sensitive information, speak slower, distinguish when a broker is used due to resource deficiency or preference. Finally, the brokers in this study expressed being sensitive to practitioners' views/disapproval of working with language brokers -which were evident in verbal and body language.

Views from practitioners

Cohen et al (1999) describes the findings of in depth interviews with 38 GPs in the UK regarding their views on children interpreting in health. Similar to Katz's (2014) interviews with health providers, the practitioners in Cohen et al.'s study also expressed discomfort working with children as interpreters when treating patients. Cohen et al notes that a major cause for practitioner's discomfort was attributed to ideological conflicts concerning their views of childhood and a child's role. The quote below articulates this sentiment:

I think it is a responsibility for the child that is, there is a terrible feeling of how it would grow up and take too much responsibility too soon which is sad for them. I also think it is sad for parents to be dependent on their children in that way. Very disempowering for them as parents and as human beings to sort of have to depend on their kids to do that. I think it must be difficult for both parties (45).

Two general practitioners in Cohen et al's study, in contrast to other participants, viewed child brokering for health as a positive opportunity. One GP shared commented on the cultural difference that can occur when a child is consistently "spoken for" or acts as a passive participant in consultations:

Because they are given the responsibility of speaking on behalf of the mum, that gives them more confidence than some of the English children. So when they aren't well, they understand what's required of them in a consultation and they can be more assertive because that's what they are used to. In that sense they are then clearer sometimes about what they want, than say a white child who is not used to that. Well, I think children respond to having a bit of responsibility, some children enjoy that, having responsibility, I would

say on the whole they can give a better account than the child who is always spoken for, you know, when people speak on their behalf (54).

All but two practitioners in this study expressed strong ideological sentiments regarding the inappropriateness of young people/ children interpreting for health, yet Cohen et al found that 24 of the 38 practitioners had relied on young people to mediate language in medical appointments. One practitioner reported having worked with a child as young as five. While most practitioners identified limited language resources as the main reason, two reported patients opting for their children as interpreters due to comfort and confidentiality, especially if interpreters were from their local communities.

Interpreters and translation accuracy

Policy makers, health practitioners, and in general adults fear that the level of quality and accuracy child interpreters can offer falls short and may cause grave medical consequences. California Assembly Bill 292 described the practice as dangerous and life threatening because misinterpretation could serious medical complications. Still, no empirical studies have analyzed the accuracy of child interpreters in health situations at scale. The only study that examines a child interpreter is Flores et al (2003), which analyzes 13 encounters between LEP patients, health practitioners, and translators (6 hospital interprets, the rest ad hoc, including 3 nurses, 3 social workers, and one 11 year old child). The study found 396 interpreter errors in the 13 encounters. The encounter with most errors was one with a hospital interpreter (60 errors, 34 errors with potential clinical consequences). The second encounter with most errors was the only child translator in the study (58 errors, 49 with potential clinical consequences). The encounters with the least errors (10) were with ad hoc interpreters- 1 nurse and 1 social worker.

Flores et al's findings are counterintuitive to what we may expect, that is, the highest error rate was found to be that of the designated hospital interpreter, and the untrained interpreters had fewer errors. The only child interpreter in this study fared comparable to the trained interpreter, but had more errors with possible clinical consequences. These findings might fuel an argument that children should not interpret for accuracy's sake; however, these findings can also suggest that trained interpreters do not perform significantly better than children.

Flores et al (2003) did not aim to distinguish between adult and child interpreter abilities; instead the study aimed to discuss the complexity of interpreting for medical purposes. The health field faces an imminent struggle in regulating the quality and training of interpreters.

This section focused on varying perspectives regarding children interpreting for health care. Unlike the previous child language brokering section, which considered what CLB research has uncovered about the phenomenon, this section aimed to delve into the controversies and conflicting perspectives. The legal perspective concerning CLB focuses on the shortcoming of the health care system to offer equal access to LEP and immigrant populations, and also the legal efforts of AB292 to ban children from language brokering in health care. The medical perspectives were greatly concerned with issues of safety and social order, most practitioners surveyed in (Cohen, et al., 2004) felt children should not have to interpret for their families for health needs. On the other hand, language brokers and their families, seemed to take a more relaxed approach. Finally, Flores et al (2003) the only study to measure the accuracy of health interpreters, including one child, found that generally across the board, health interpreting proves to be complex and ad hoc interpreters, children, and professional interpreters all struggle to achieve high accuracy. One important detail practitioners and policy makers fail to address is how LEP patients and families navigate health information outside regulated spaces. In other

words, if AB292 were to pass and Title IV were to be strictly enforced, this means child language brokers would not be allowed to interpret for health in medical spaces, but they could still have to broker at home and in their communities.

3) Health Literacy & Literacy

This study aims to examine what language brokers learn as a consequence of navigating the complex terrain of the health domain. One of the expected challenges in conducting this research will be interpreting language brokers' knowledge and skills and making sense of what is science knowledge, what is health knowledge, and what is health literacy? Jasmine (language brokering example from chapter 1) was able to describe that she learned medical terms and details regarding certain health conditions. One way to interpret what Jasmine learned is to classify it as vocabulary or language gains; her knowledge regarding the medical issue her mother encountered (a cyst) could be thought of as medical or health knowledge. Another analysis could be that Jasmine gained health literacy skills. This section considers how health literacy literature and frameworks can potentially influence or shape my understanding of what language brokers learn from the health domain.

Health Literacy & Education

As recent as four decades ago the term health literacy did not exist. Today, we know that health literacy can be one of the greatest tools in preventing diseases and promote healthy lives. Agencies such as the U.S. Center for Disease Control (U.S. CDC) and the World Health Organization (WHO) implement health literacy programs to prevent the transmission of HIV and to promote healthy behaviors such as exercise and prenatal care (WHO, 2009). Low levels of health literacy can lead to a higher rate of emergency room visits, difficulty following medical treatment, lack of preventative care, and a higher risk of being uninsured- consequently

accumulating costly medical debt. Although health literacy has come to be a critical factor for health outcomes, there is much debate on what the term *health literacy* actually means (Baker, 2006). Berkman et al., (2010) found 13 different definitions of health literacy across health, medical, and public health research. Originally health literacy centered on being able to understand health information, then a shift occurred to include effective reading, writing, and numeracy skills- deemed necessary to make decisions and participate in care. Recently, new technology and online tools are constantly emerging and changing how people participate and manage health, this may also eventually lead to a revision of health literacy's definition.

Despite the changing health and medical landscape, the most nationally renowned health literacy definition remains: “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (Institute of Medicine, 2004, Healthy People 2010, DHHS, 2000, U.S. CDC). This definition has shaped the measurement of health literacy among the American adolescent and adult populations. The Rapid Estimate of Adult Literacy in Medicine (REALM), Test of Functional Health Literacy in Adults (TOHFLA), and The Newest Vital Signs are among the most popular health literacy measures used by researchers and practitioners to assess individuals' health literacy abilities. These tests generally seek to determine whether a patient recognizes medical and health vocabulary and understand medical directions by evaluating- numeracy, vocabulary, reading comprehension, prose literacy, document literacy, and/or quantitative information. The latest national health literacy assessment, produced 13 years ago as a part of a larger project- the National Assessment of Adult Literacy (NAAL) developed similar measures to the of the REALM test. NAAL (2003) found that only 12 percent of adults (16 years and older) had proficient health literacy, and only a staggering 8 percent of 16-18 year olds.

The 2003 NAAL results are the most recent nationwide study on the health literacy to include youth, 16 years and older; less is known about the health literacy skills of youth younger than 16 years of age, and there are no K-12 standardized testing measures for health literacy. Education research can tell us little about the health literacy levels of students, and education standards on health literacy are guided by the National Health Education Standards (NHES), a program developed by the CDC. The NHES includes 8 standards:

- 1: comprehend concepts related to health promotion and disease prevention to enhance health.
- 2: analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- 3: demonstrate the ability to access valid information, products, and services to enhance health.
- 4: demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- 5: demonstrate the ability to use decision-making skills to enhance health.
- 6: demonstrate the ability to use goal-setting skills to enhance health.
- 7: demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- 8: demonstrate the ability to advocate for personal, family, and community health.

Standard 8 aims for students to be able to advocate for personal, family, and community health; this standard conflicts with beliefs that children should not carry any responsibility in mediating health care and medical information for their families (as argued by proponents of AB292 and Rack, 1982).

Although none of the 8 standards mentions health literacy by name, NHES dedicated their first set of standards in 1994 to health literacy; today the committee advocates the best way to improve health literacy is to embed health in all levels and across subjects in education. This direction on health education signifies the interdisciplinary skills involved in being health literate, such skills can be developed from science, math, literacy, and language education. Hence, academic skills are transferable to health care, but are health care skills transferable to academics?

Expanding Health Literacy

Health literacy and current health education standards provide interesting perspectives on the skills and knowledge involved in being health literate. It is important to distinguish, that the health standards listed above are not representative of what the CDC deems to be health literacy, instead they are abilities that the CDC and NHES believe require health literacy, which the organization defines as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” This definition of health literacy overlooks any skills necessary to participate in managing health, for example, interpersonal skills or the ability to describe symptoms in order to participate in health care. I believe that health literacy research and framework can help us understand what language brokers learn from language brokering to a certain degree, but it is limiting in conceptualizing what counts as health literacy. Similar to the evolution of our understanding/framing of literacy practices, I argue health literacy also needs to evolve to include how people practice, participate and manage health today. To demonstrate this idea I provide a brief overview of the changes in literacy research in the past few decades.

Fifty years ago literacy was thought to be an autonomous skill, primarily consisting of being able to read and write. Subsequently, a great part of literacy research was inspired by cognitive and developmental psychology, with a strong emphasis on the mental processes associated with literacy, and less of a focus on the social aspect (Purcell-Gates, 2007). Along with the reemergence of Vygotsky's sociocultural theory in the 1970s (Moll, 2013) there was a movement by scholars across fields (anthropology, sociology, and education) to discuss the role of socialization and culture for language and literacy development. Research then moved to consider new and multiple literacies (e.g., Street, 1984), to discuss the different forms literacy is practiced across cultures and spaces (Heath, 1983, Delpit, 1995). Moll et al (2005) contributed to this direction in research by developing what is now known as *funds of knowledge*, which refers to the "historically and culturally developed knowledge and skills essential for household and individual functioning and well being" (p.133). In other words, today we conceptualize literacy to encompass more than the traditional reading and writing, and acknowledge that there are historically and culturally developed skills important for participating in our world. Adopting this view of literacy to health literacy could possibly move the definition and measurement of health literacy beyond understanding mainstream/traditional health information for making decisions. Health literacy could encompass the practice of asking questions regarding health, negotiating cultural differences, or being able to assess environmental or systemic factors that affect our health care.

In looking to expand the meaning of health literacy, we must consider how our society currently practices health literacy and discuss what health literacy skills and knowledge we value, and which we do not, and engage in a dialogue of the reasons why. Some health literacy researchers have begun to move in this direction. For example, Nutbeam (2000) proposed a

model that envelops the prose, document and quantitative elements into one level of literacy he calls functional literacy. Nutbeam's second level is called interactive health literacy, useful for modifying personal and social skills that affect health related behaviors, and his third level is critical health literacy, which he considers necessary for political and social action. One aim of this study is to contribute to ways of conceptualizing health literacy.

METHODS

1) Overview

This chapter overviews community background information and the different methods and processes used to conduct research for this study. Section two offers background information on the community and site from which participants were recruited and in which data collection took place. Section three and four reviews participant selection criterion and recruitment methods, respectively. Section five reviews data collection. Section six explicates the methods used for this study, and rationalizes their uses. Section seven reviews data analysis methods. Last, Section eight, builds on the brief overview of participant backgrounds in section five, and offers more in depth background information through participant profiles.

2) Community

Participants for this study were recruited from *Great Summits School (Pseudonym), a K-8 independent charter school located in Los Angeles, CA. Great Summits' local community population is predominantly Latino (56%) and African American (38%) (U.S. Census, 2000). According to the Los Angeles County Department of Public Health, this community's Latino population rose to 63%, as the African American population declined to 32% in 2009. The

average household income for this community is \$34,000 dollars, a figure low for the city and county of Los Angeles; most residents in this area have less than a (U.S.) high school education, and less than 10% hold a four-year college degree (U.S. Census, 2000). Great Summit's school building shares a campus with an unassociated elementary school. The campus main entrance faces a residential street; a busy road, mixed used building (store fronts and apartments), and community park surround the other campus. The school's neighborhood (immediate area) has multiple beauty salons, soul food eateries, Latino eateries, fast-food chain restaurants, auto repair and detailing shops, and motels and one corporate bank branch and major pharmacy. The residential community in the area is primarily made up of single-family homes and some apartment buildings.

Great Summits is located in Los Angeles Service Planning Area X (LA SPA-X), which has the greatest percentage of population living in poverty (28.3%) and homes with children (52.2%) in all Los Angeles County areas (Los Angeles County Department of Public Health, 2009). This service planning area also has the lowest percentage of residents who feel safe in their neighborhoods (57%) and who rate the quality of produce as high where they shop (27.6%). Health-wise, LA SPA-X has the highest percentage of overweight children, obese adults, adults diagnosed with diabetes, and adults diagnosed with hypertension. LA SPA-X has the highest percentage of adults in Los Angeles who speak mostly Spanish at home, the second highest percentage of foreign-born adults, and the 3rd highest (out of 8 planning areas) percentage of foreign-born children.

With the permission of the school administration I volunteered weekly for the after-school program, which is coordinated by a local non-profit organization. As a volunteer, I helped with general supervision when staff was limited and also when staff needed to speak one-on-one

with a student. In addition to filling supervision gaps, I regularly helped with homework and developed impromptu activities with students, such as a food science club and walking club. Through volunteering I was able to acquaint myself with the students, and I became particularly familiar with the students in the 6th and 7th grades. Students were aware that one of the reasons I was at their school was to conduct a dissertation study on child language-brokering. Discussing my study's topic prompted students to share their experiences with brokering language for their families.

Through volunteering I was also able to become familiar with participants' communities and families. Familiarization with the community, school, students and their families, prior to interviews, was important as it helped provide background information that participants sometimes referred to in interviews. My familiarization with the community and families also helped orient the data analysis and writing process, because I felt I knew participants as more than study participants or language brokers, I hoped to present them and their stories in my research as thoughtfully and authentically as possible.

3) Participant Selection

Following the criterion-selection method developed by Schensul and LeCompte (2012), the participant selection criteria include the following:

1) Participant brokers language regularly for a family member

The central requirement for study participants was that they broker language on a regular basis for family members. Literature on language brokering largely focuses on children who do this work for their families; however, as multiple participants mentioned in this study, they often encounter strangers who ask for their help. For this study, I sought participants who brokered language regularly for one or more family members. Having participants whose main language-

brokering activities involved family members increased the likelihood of being able to interview and gather supplemental information from their families.

2) The participant and family speak Spanish

The largest non-English speaking population in the school's community is Latina/o immigrants and non-immigrants who speak Spanish. In an effort to create a reflective sample of the community, it was important to select participants whose families spoke Spanish. An additional reason for a focus on language brokers who mediated between Spanish and English, was my own bilingualism (Spanish and English) which made it possible for me to speak directly with study participants and their families without an interpreter or language broker.

3) Participant has at least one member with ongoing health needs

This study's focus on health integrally calls for language brokers with continuous or common health encounters. Although not a strict requirement, participants in this study were asked about the health status and needs of their families, including chronic issues. All participants stated that they brokered language regularly for their health and their families' health needs; however, only one participant reported having a family member with chronic health issues.

4) Recruitment

Initially, recruitment was intended to occur through class announcements. Each class level at Great Summit's (6th, 7th, and 8th grade) was shared by two teachers; I made announcements at two 7th grade classes and two 8th grade classes. In these announcements, I introduced my research topic and myself and explained my commitments and the study details. I concluded class announcements with the distribution of letters to parents with information about the study, my background, and consent and assent forms for families interested in participating.

Letters and permission/consent forms were written in both Spanish and English. While I was not able to gift all families with thank you gift cards during the study, I sent thank you gift cards in the amount of \$25 dollars (self-funded) and also made sure to provide snacks and refreshments during interviews. During class announcements I also asked students to raise their hands (if they felt comfortable doing so) if they helped others by brokering language . It was apparent that many students were language brokers; however, when I asked them to raise their hands if they had brokered language for health issues, the number of hands were noticeably fewer. Ultimately, the most successful recruitment strategy for this study occurred through informal referrals from staff and faculty and through the rapport I developed as an afterschool volunteer. For example, the only 6th grade study participant (5th grade when I began volunteering) was referred to me by a school teaching assistant who noted that the student served as a language broker frequently at school for her parents. The participant description section of this chapter details participants' backgrounds and their recruitment process further.

4) Participant Descriptions

This project is centered on the experiences of seven child language brokers. The participants in this study fit the criteria listed in section three above and were recruited by one of the methods described in section four. All participants reported brokering language for their families regularly and having a significant number of experiences brokering for health issues. The table below (Fig. 3.1) lists participant names (pseudonyms), grade in school, length (in minutes) of total recorded interviews, and family origins. The table also lists the languages spoken by the language brokers, and the main language spoken at home is listed first (for example, Spanish first indicates Spanish is the main language spoken at home). The estimated frequency for brokering language refers to brokering language for health issues and escalates

from occasional, to often, to the most frequent, which was described by participants as being on a weekly basis. The last column on the right lists key purpose related to their experiences brokering for health issues.

A brief profile description of each participant is presented in section 8 of this chapter. Profile descriptions offer in-depth background information for each participant and insights on the similarities and differences between participants.

Participant and Data Collection

Participant Name* *Pseudonym	School Grade	*Time Recorded Interviews	Languages spoken	Family Origin	Language Brokering Frequency	Main Health Lang. brokering themes
Berto	7	61 min	English Spanish	El Salvador	Occasional	Family, home
Dee	7	111 min	Spanish English	Mexico	Often	Family, home, doctors' appointments
Elle	7	116 min	Spanish English	Mexico	Weekly	Family, home, doctors' appointments
Jennifer	7	72 min	English Spanish	Mexico & U.S.	Occasional	Home, mail, phone
Jessie	7	142 min	Spanish English	Mexico	Weekly	Family, strangers, public, business, doctors' appointments, home
Lacey	6	86 min	Spanish English	Guatemala	Often	Family, home, doctors' appointments
Tyler	7	56 min	English Spanish	Spanish English	Often	Home, school, doctors' appointments

Table 3.1 *The recorded time of interviews is the amount of minutes recorded. The amount of time actually spent talking informally with participants about their language-brokering experiences is much higher and not included since such discussions were ongoing.

5) Data Collection

The methods employed for this study include 1) Developing familiarity with participants' community (spending time in the community from which participants were to be recruited, for

the purpose of becoming familiar with study participant's neighborhood and school activities), 2) individual and family interviews, and 3) scenario-based interview questions.

Developing Familiarity

Prior to participant recruitment, I dedicated 12 months to volunteering at Great Summits school in order to familiarize myself with the school and the local community. The process of familiarization enabled me to explore the neighborhood surrounding the Great Summits campus. I became familiar with the busy streets, locally-owned stores, and popular student "hang-outs" such as the nearby public park, the fast food restaurant across the street, and the nearby corner where students eagerly bought food from an ice cream truck and street vendor every day afterschool. Alongside signs advertising services and products in English, there are signs in Spanish. In recent decades the community has become home to immigrants from Mexico and Central America.

Individual and Family Interviews

Ethnographic interviews are primarily linked to anthropology research which studies culture (Merriam, 2009). For this study ethnographic interview methods appropriately suited the research goals because the study does not aim to evaluate language brokering, literacy, science, or general health-related knowledge, but, instead, aims to capture a snapshot of the experiences of different young people. In other words, the main goal of this study is not to evaluate or measure but, instead, to recognize and identify health-related learning opportunities.

James P. Spradley's *The Ethnographic Interview* (1979) served as the principle guide for the structure of this study's interview protocol. Spradley's elements of questioning, specifically, the element of "expressing ignorance" (p. 56) on health topics during interviews made it possible for me to explore the depth, flexibility or transferability of participants' knowledge

regarding certain health issues that they discussed. Similar to individual ethnographic interviews, family interviews were also open-ended and semi-structured to permit maximum flexibility for families to discuss what they felt comfortable sharing.

I conducted a total of 22 interviews, including 19 individual interviews with the seven study participants (child language brokers), and three interviews with family members and the language broker. Individual interviews took place on school grounds after school. Family interviews (three in total) took place at participants' homes and in a nearby restaurant. The format of individual interviews began with a brief introduction of the study's topic, followed by basic questions about the participant, including: How old are you? What grade are you in? Do you have any siblings? Who lives with you at home? Building on this family information, I then introduced health as a topic by asking questions about health in general and family health. For example, I asked such questions as: What do you think about health? How would you describe health? How would you describe your family's health?

Opening interviews with questions that asked participants to describe their family's health aimed to explore how each participant described health in general, how they described their families' health needs, and how, if at all, they positioned themselves in helping with health issues. For example, prior to interviewing Elle, I learned through informal conversations that her family lived in a unit behind her grandmother's house and that her grandmother suffered from chronic health issues and needed Elle to translate medication instructions regularly. Asking Elle to describe her family's health positioned me to ask about any chronic or on-going health issues with her grandmother in a thoughtful and approachable manner. Most participants did not have any chronic health issues in their families. For example, Tyler was quick to describe his family's health as "good," and he described how they exercised in the summer when they played soccer at

a local park. I was able to move from general health issues to more specific questions about language brokering by asking about illnesses: for example, what happens when someone in your family is sick or does not feel well? Have you helped when someone is sick? How? Have you translated during a doctor's visit or for medicine? Each interview varied and deviated from the interview guide in different ways; the flexibility of a semi-structured interview enabled the participants and me to have authentic discussions that were not stopped or made awkward by the rigidity of survey-style interviewing. Once participants began describing language-brokering events, interview questions transitioned into probing and scaffolding: Can you say more about that? How did you feel about this language-brokering moment? Can you walk me through that doctor's visit?

Family interviews were similar, and, although the purpose of family interviews was to collect more data on specific language-brokering events described in prior interviews, it felt more comfortable to follow the instinctive pattern of first getting to know one another and then building up to health issues and language brokering. Elle, Jessie, and Dee's mothers shared family histories with me, then discussed schooling and health. This, then, led to discussions about my study and questions about language brokering. Dee's family interview included both her parents, and as I describe in chapter five, was very unique because Dee is a second-generation language broker. Consequently, I was able to witness a different language-brokering dynamic in her family. Last, for all three family interviews, I was able to ask participants (Elle, Dee, and Jessie) to demonstrate how they might typically interpret and explain instructions for medication or health supplements for their families.

Scenario-Based Interview questions

This subsection discusses the use of scenario-based interview questions, an interview

method used in response to the unforeseen challenges in interviewing study participants. A challenge for any interviewee is recalling details or circumstances of any past event. For this study I found that, despite participants' enthusiastic expression of having brokered language for multiple health encounters, they struggled to recall the specific details. Participants commonly glazed over encounters with descriptions such as "I translated for my mom at the doctor's" or "I told the doctor what my mom said." An added challenge were the unplanned-for elements of interviewing children, such as interviewing at the end of a school day. Participants for this study varied in time of arrival at school, some arriving minutes before the morning bell while others arrived an hour or more before the start of class. This meant they had been at school eight or more hours, making it understandable that focusing for an interview at the end of a school day was sometimes difficult. In a related issue, most interviews took place during "free time," such as recess or yard time, a rare time frame in which students are able to socialize without the indoor classroom rules they have followed all day. Lastly, the semi-structured interview format was comprised of mostly open-ended questions and on-the-spot follow-up questions. Open-ended questions can sometimes be challenging for interviewees to answer. Children, in particular, may find close-ended questions less intimidating as they provide more cues and prompting (Irwin and Johnson, 2005). Although close-ended questions offset some of the pressure interviewees may feel about answering the right question or answering the question correctly, they also stifle an interview's scope and can prevent interview discussions from going further in depth.

A strategy that seemed to fit both the needs of the participants and the research aims of this study was scenario-based questions (also known as situational or hypothetical questions). For this study, scenario questions were based on fictional stories about child language brokers'

experiences with health encounters. I wrote three fictional stories about health encounters experienced by child language brokers. The purpose for writing fictional stories was inspired by research indicating that children are stimulated to identify with literacy as early as the age of four, the stories children tell and relate to is telling of their development and how they see themselves in our world (Williams, 1991).

The fictional stories I wrote were not about study participants' experiences, but instead were about scenarios and language brokers I could imagine from my own personal life as a language broker and research of language brokering. For example, one story was about a fictional language broker named Emma. In the story, Emma and her mother speak Japanese and English, and Emma sometimes translates for her father who has difficulty speaking English. Emma's story includes small details such as Emma being praised by her family for her ability to serve as a language broker, and includes an example of Emma's language-brokering skills when she accompanied her father to a pharmacy to purchase a natural medicine containing ginger. The main language-brokering encounter in Emma's story is a doctor's visit for her father in which a nurse explains that he has high blood pressure and needs preventive care because untreated high blood pressure could lead to a heart attack.

Emma's story touches on several language-brokering issues. The first issue had to do with praise. Most participants mentioned being praised for language brokering, so in my story, Emma was praised for her language brokering skills. By including this detail, I hoped study participants might relate to Emma. The second issue was related more directly to health, specifically natural health. Emma helps her father look for a natural medicine containing ginger. This facet of Emma's story paved the way for interview discussions about the participants' experiences both with alternative medicines and with language barriers at pharmacies. The third

issue Emma's story introduced was the issue of polysemous medical terms- specifically high blood pressure. The term itself, high blood pressure, is a health condition and difficult to explain. However, the actual words--high, blood, and pressure,--may be words that language brokers could explain. The last issue, was the nurse's comment to Emma that high blood pressure could lead to a heart attack. This prompted questions about whether participants in this study encountered similar situations or fears when they brokered language and information about potentially-serious health issues.

In response to Emma's story, one participant, Elle, was able to recall information about high blood pressure. In previous interviews, Elle was not able to recall why her grandmother needed medication or what her medical condition was called. After reading Emma's story, I asked Elle if she had experienced a similar situation.

Elle: Yes, one time I went to the doctor's appointment and I translated, but the doctor know Spanish... [at an appointment] for my grandma... I went to help, and they were talking about how she could not eat that much food, like tortillas, because they could make her blood pressure high.

In previous interviews, Elle had not recalled specific details of her grandmother's illnesses; however, in our discussion about Emma's story she was possibly reminded or felt more comfortable talking about her grandmother's problem with high blood pressure. It is important to note that in the first encounter, Elle was present for the purpose of brokering language, but, because the doctor was bilingual, she did not need to interpret. This small encounter sheds light on how, even when children do not need to broker language, their role as the family language broker privileges them and exposes them to important events.

Similar to Elle, other participants were able to relate to the fictional stories and were

enabled to go deeper and discuss different language-brokering issues. For example, when I asked Tyler if he thought there should have been another person to help interpret for Emma’s father, Tyler responded: “No because Emma’s dad needs to learn English too, and Emma helps with that.” Tyler also said that he thought Emma would remind her father to take the medicine at home because that is what he would do.

6) Data Analysis

The data analysis for this study was conducted in six stages, following the expanded process outlined by Miles and Huberman (1994): 1) data reduction, 2) data display, and 3) conclusion drawing and verification.

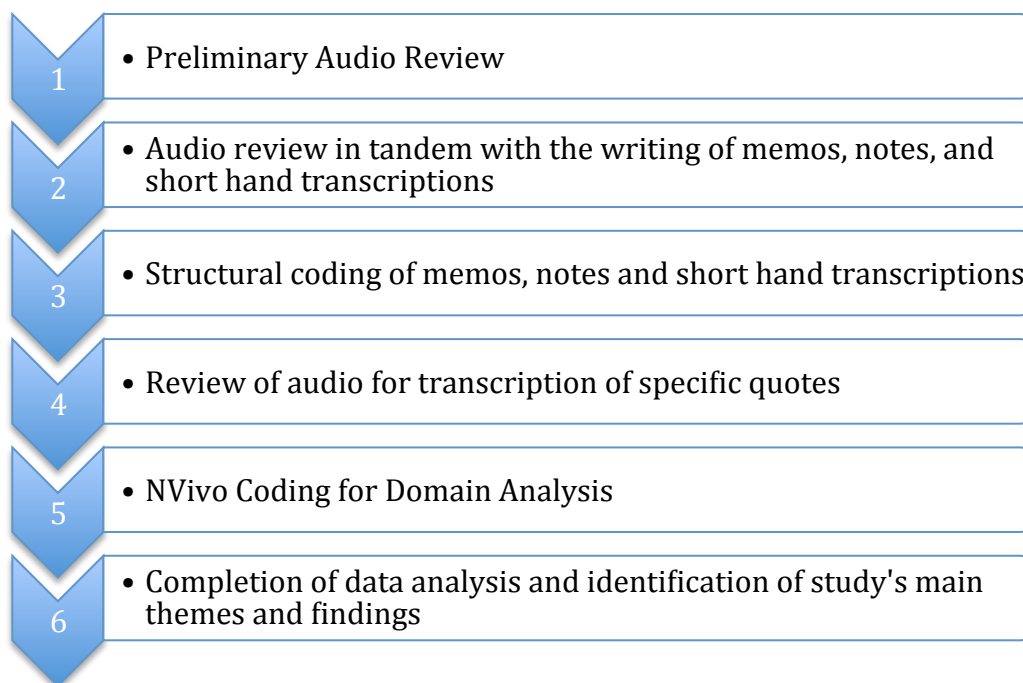


Fig 3.1 Data Analysis Graphic

6.1) The first step was a preliminary review of the audio, followed by a second review of the audio accompanied by memo writing and short-hand transcription. For this study, the tool

used to reduce data was the process of transcription and creation of memos. The transcribing process enabled me to revisit interviews closely and listen to particularly relevant parts of interviews multiple times in order to transcribe them. Reviewing and transcribing the audio helped me to identify important excerpts as well as to, subsequently, reduce the amount of data that needed to be revisited for closer transcription in future data analysis steps. The task of reducing data may suggest less labor is required to analyze data; however, as Miles and Huberman underline, data reduction is not separate from analysis but a part of the analysis. Intensive labor is required to determine what data to condense, which data is relevant, and which data, although tangentially related and interesting, is not directly related to the study's purpose.

6.2) Memos and notes written during the transcription process assisted the organizing data and preliminary coding (Saldaña, 2013, p 21). Memos and notes were usually organized into three columns. The first column contained raw data, short hand transcription, and direct quotations. The second column contained essential participant details (later used for profile creation). The third column was reserved for key words, for example, medical and health terminology including descriptions of illnesses and terms used for insurance and medical/health care procedures (appointments, forms, pharmacy visits, etc.). I identified as key words that that were linked to health topics and might indicate content related to the purpose of this study. Additionally, by focusing on key words directly related to health issues, I hoped to gather ideas about possible major themes in the data.

Memos and notes also helped in the writing of participant profiles. I wrote participant profiles for each language broker. Seidman (2006) describes crafting profiles for data analysis as beneficial for telling participants' stories and urges using the first-person method in order to avoid distancing the reader from the participants' voice and story. Seidman also argues that

profiles are meant to be coherent and organized stories, and, as such, advises weaving together the profiles with the transcripts of multiple interviews and editing the profile in this way. For this study I found the best way to stay authentic to participants' stories was to create profiles in the third person, in order to provide context and show the participant as, not only a language broker, but a brother, sister, son, daughter, student, and friend.

6.3) Coding

The primary methods of coding were Structural Coding and In Vivo Coding (Saldaña, 2013; Corbin & Strauss, 2008). Saldaña (2013) draws from Namey et al. (2008) to define structural coding as “a question-based code that acts as a labeling and indexing device, allowing researchers to quickly access data likely to be relevant to a particular analysis” (Saldaña, 2009, p. 84). Saldaña adds Structural Coding helps code and conduct the initial categorization of data. In line with this definition, I used structural coding to label and index health topics and themes in interview data. The three structural codes included family information, language-brokering encounters, health topics (any mention of health-related information or experience). Structurally coding for family information allowed me to index participant information, which could later be drawn on to create participant profiles and to situate data. For example, if a participant mentioned language brokering for a specific sibling, reviewing coding for family information could help find more information about the sibling's age and health needs.

The second primary system for coding was In Vivo. In Vivo coding is describes as “that which is alive”; and state that “the code refers to a word or short phrase from the actual language found in the qualitative data record, the terms used by [participants] themselves” (Saldaña, 2013 p. 91; Corbin & Strauss, 1987, p.33). In Vivo Coding for this study was based on the terms and words used by participants during our interviews. The primary codes were: translated,

interpreted, confused, doctor, nurse, white (lady or man), sickness, illness, behavior, helps with, tell him/her, told mom/dad, medicine, injections, shot, clinic, healthy, unhealthy, cancer, eats, and exercise. These were the key words or In Vivo codes most present and relevant in data transcription for this study, and they helped guide my analysis.

The coding for domain data was conducted with NVivo software and reflected a Structural Coding process. NVivo software allows users to create nodes (in this coding process nodes were participants). Codes and sub-codes were then created. Codes were the main domain features: 1) language-brokering activity (brokering language at the hospital, for schooling, etc.), 2) space/setting in which the language-brokering event took place, 3) the stakeholders/participants in the language-brokering event, 4) the content/topic being language brokered and tools/resources, and 5) health literacy themes.

The following are sub-codes listed next to the main code.:

1. Sub-codes for language-brokering activities:

1.1) brokering language at a medical appointment, 1.2) brokering language for health in relation to schooling, 1.3) brokering language for medications and supplements, 1.4) brokering language for health insurance forms, and 1.5) miscellaneous instances of brokering language for health- related information.

2. Sub-codes for spaces and settings in which language brokering occurred:

2.1) Hospital, clinic, doctor's office, 2.2) home, mail, telephone, 2.3) school, 2.4) public setting such as a store or public transportation, and 2.5) the Internet.

3. Sub-codes for Stakeholders (other participants in language brokering encounters):

3.1) doctor or nurse, 3.2) medical/ health office assistant or office secretary, 3.3) parent, 3.4) sibling, 3.5) extended family member, 3.6) stranger 3.7) stranger- customer, 3.7) teacher or school staff, 3.8) telephone operator, and 3.9) other.

4. Sub-codes for content:

4.1) physical health, 4.2) mental health, 4.3) dental health, 4.4) optometry, 4.5) health insurance issues and forms, 4.6) diet and nutrition, 4.7) exercise, 4.8) behavior, 4.9) health related to schooling, and 4.10) medicine, supplements, and health products.

5. Sub-codes for tools and resources:

5.1) parents, 5.2) health-care providers, 5.3) office assistant at a doctor's office, 5.4) previous experience, 5.5) technology, such as phone or computer for Internet access for online information or online translators/dictionaries.

6. Sub-codes for health literacy content:

6.1) preventative care, 6.2) disease and illness diagnosis and/or treatment, 6.3) adolescent health, 6.4) infant/ early-childhood development, 6.5) reading and writing for insurance forms and medical instructions, 6.6) digital literacy, and 6.7) procedural experience such as how to make an appointment or ask for help for health-related issues.

7) Participant Profiles

Berto

I met Berto while helping a group of students with math homework. I was able to hear Berto making a case for why pupusas were the best food. As we began discussing pupusas, I shared that I am from El Salvador, Berto responded with great surprise, "You?" He then shared that his family was also from El Salvador. After reviewing math homework, I invited Berto to participate in the study. Berto said that he did translate for his mom and grandmother, that he has

definitely helped with health-care needs, and that he would ask his mother for permission to be in the study. His mother agreed to let him participate in the study, and I was able to meet with him twice before the after school program changed their attendance policy, which required Berto to quit the program. The policy change required all families to pick up their children up at the end of the afterschool program, making it difficult for parents who schedule with other family members or nearby neighbors for carpooling.

Berto was in seventh grade during our interviews. He has a younger brother and is the main language broker for his mother, who, he explains, can understand English but has a harder time speaking it. One of the first things I learned about Berto is that he is very interested in health issues, particularly in weight loss. Berto shared that he associated diet and exercise with health, and that losing weight was one of his health goals. He was proud of having been able to change his eating habits and emphasized that, before he and I met, he was “bigger,” extending his arms in front of his stomach in the shape of a circle. Berto’s interviews provided this study with insights regarding the health themes that arise as children become pre-teens, and then teenagers. Some of the health information Berto brokered language for at doctors’ appointments included weight, acne, self-care, and school-required vaccines. Chapter six explores Berto’s experiences, and examines the “back and forth” dynamic of brokering language.

Dee

Prior to inviting Dee to participate in this study, the school’s principal and a teacher commented to me that Dee was very special. Dee is polite, friendly with her peers, commonly brokers language for her father, and is also a cancer survivor. I met Dee when she was in the sixth grade, and interviewed her while she was a seventh grader. I was able to get to know Dee better during “homework time” and “enrichment activity time” at the afterschool program. I

interviewed her twice during the afterschool program before she discontinued attending it (presumably because of the new attendance policy). I also interviewed Dee and her parents once at their home over winter break.

Dee has a younger sister and brother, and they live with both parents in a nearby (to school) neighborhood. When I first asked Dee about her family and brokering language for health issues, she explained that she brokered language “a lot” and helped her father with health care information. I explained my research project and asked if she might be interested in participating in this study. She seemed interested but made clear that she would need to ask her parents first. Later the same day she ran to find me on the schoolyard and, out-of-breath, announced “My dad is here!” I walked over to her father and introduced my research project and myself. Dee’s father politely accepted the forms and said he would make sure to talk it over with his wife and let me know what they decided. The following week Dee excitedly greeted me with signed consent forms.

Dee and I did not discuss her cancer treatment in great detail, however, during the family interview, Dee’s mother explained that the doctors who treated Dee did not let her (mom) broker language for her husband and told her that while there she was “mom.” It might have been Dee’s mother’s instinct to switch into to a language broker role, as she is a telephone interpreter and is often assigned phone calls with health-care providers, insurers, and patients. A key perspective Dee and her family contribute to this study is the perspective of a second-generation language broker. As a second-generation language broker, Dee has observed her own mother interpret for her father and grandfather and also on the phone for clients; sometimes they both broker language for the same information for Dee’s father, breaking any assumptions that all language brokering families are made up of one child language broker and two parents who need their

help. As I discuss in chapter five Dee's family closely resembles the future of child language brokering dynamics.

Elle

Elle and I met at the afterschool program when she was in sixth grade. Soon after our meeting, Elle expected my help with homework and other activities on the days I volunteered. Elle also made sure to negotiate times for me to leave. For example, if I let her know that I planned on leaving at 3 pm, she insisted I leave at 5 pm. In response, I might offer to leave at 3:30, and she counter-offered times until we reached an agreement. Elle was sure to leverage her offers by noting if I left earlier the week prior or if the following week was a holiday break. She might then argue I should leave later as I wouldn't be coming the following week. Elle is a great negotiator, which might surprise some because she is also thought of as a shy student.

I interviewed Elle once over the summer between sixth and seventh grade and then three more times during her seventh-grade year. Through our time together I learned that Elle brokered language for her mother, and, when I explained my research to her, she said she translated a great deal for medicine at home, specifically for her grandmother. I invited Elle to participate in the study, and she accepted. We spoke to her mother the same day, and she, too, was on board.

Elle's family lives a little further from Great Summits in a unit behind her grandmother's house. Elle has five siblings: three brothers and two sisters. She is the middle child (three older siblings, two younger siblings). Her mother, little brother (a toddler), and sister (a baby) were present for our first interview. Unbeknownst to me, the day of our first interview was Elle's birthday. Having me over made her very happy and gave me the impression that I was a special birthday guest. I brought along treats for our interview as a thank you, and this doubled as an

impromptu birthday present. Elle was quick to share the treats I brought her with her little brother.

Most of the language brokering Elle does for health needs is for her grandmother. Elle brokered language for her grandmother's medicine at least once a week, and she shared that she also occasionally helped her mother with health forms and to translate during clinic visits. Elle's language-brokering experiences are explored in chapter six and function as examples of the roles language brokers can take on in health-care visits in addition to language brokering.

Jessie

The school's summer program coordinator introduced me to Jessie during the summer between Jessie's sixth and seventh grade. The coordinator explained to me that Jessie helped her mother with "health products." I introduced myself and explained my research study to Jessie. While I spoke, Jessie was preoccupied studying the playground and her classmates playing, but, nevertheless, she kept up with our conversation. Jessie said she was interested in participating in the study, and the same day I met Jessie's mother. Jessie's mother is actually her grandmother and is Jessie's guardian for all intents and purposes. I refer to Jessie's grandmother, as Jessie refers to her: mother or mom. Jessie's mother raised Jessie on her own and recently (in 2017) brought a granddaughter from Mexico to live with her and Jessie. I was able to interview Jessie's mother and Jessie together and to ask them questions about health products in order to explore what Jessie's understanding of the products and the health issues the products aim to relieve or prevent.

Jessie's mother is a sales representative for a *Healthy Way, an international health supplements company. Jessie brokers language for her mother's clients regularly. This includes explaining the uses of products and sharing "testimonies" of the products helping people with

health issues. In addition language brokering, another of Jessie's main activities outside of school is writing fan fiction. Fan fiction refers to fictional stories written by fans about characters from books, movies, and television shows or about real-life musicians, actors, and celebrities. Jessie wrote fan-fiction about YouTube celebrity brothers. Throughout our interviews and interactions, she constantly found ways to talk about the brothers and never let me forget she has over 1,000 followers on Instagram. During our first interview she showed me her Instagram account which did not have any pictures of her, but ,instead, pictures of the YouTube brothers and, below them in the caption section, her fan fiction stories.

Jessie's experience as a language broker for her mother's business offers a very special perspective on language brokering in the health domain, one that, to the best of my knowledge, has not been explored or shared in language-brokering literature. Jessie's experience is detailed further in chapters five and six and contributes to this study's examination of how language brokering for health and health literacy are unexpectedly intertwined.

Jennifer

I met Jennifer while volunteering for her 7th grade afterschool class. Jennifer is a very social and talkative student. During the afterschool program's homework time, Jennifer was often warned for not doing work or for asking to use the restroom and instead taking long walks around campus. One of the first and more memorable interactions I had with Jennifer was during a heated disagreement she had with an afterschool staff member. I offered to go for a walk with Jennifer to give her a break. I sympathized with Jennifer and told her that, after a long day at school, sometimes emotions can run high because we are depleted of energy. But she refuted my explanation and stated that she was upset because her friend was being treated unfairly. I responded by praising her for being a great friend, and I told her that what she felt might be

described as the emotions from feeling injustice. She liked this take, and I remember her face softening and manner relaxing.

Although I suspected Jennifer was not a language broker since I had never seen her speak Spanish and because I knew her mother spoke English, I was surprised to learn that she did broker language for her father. Jennifer said she translated often for her father, and she surprised me further when she said she was interested in participating in my study. Her willingness to participate surprised me because this meant Jennifer was willing to sacrifice some recess or free time at school, time she really enjoyed.

Jennifer, like Dee, another participant for this study, is also a second-generation language broker. Unlike Dee's mother, Jennifer's mother was not a telephone interpreter. Jennifer contributes another view of the experience of a second-generation language broker. Her experiences are examined in chapter five, and she offers one of the two telephone language-brokering encounters shared by participants.

Lacey

Lacey was the only sixth-grade participant in this study. She was quiet in class, diligent in her afterschool work, and also very active on the playground. I could count on finding Lacey on the yard playing soccer or, even more often, kick-ball. Lacey had immigrated from Guatemala. I learned that she had been raised for a few years in Guatemala by her grandmother and then came to the United States to join her parents and younger siblings who were born in the U.S. She stated that she initially wanted to stay longer in Guatemala because she liked it there. A few times during our interviews, she explained that her (Lacey's) doctor and dentist are different than her siblings' because they (siblings) were born "here" (U.S) and she was not.

Lacey's language-brokering experiences are similar to the narratives presented in traditional immigration and language-brokering literature. She is the oldest child in her family and helps interpret for her parents and recent immigrants, and she is also very happy to broker language. Her experience is similar to other participants in this study in that one of the common health encounters she brokered language for were her sibling's doctors' appointments (Dee and Elle also brokered language for their siblings' appointments). Unlike other participants, Lacey learned English in the past two years (prior to our first meeting), and, like her parents, she is also becoming familiar with her new city and American culture. Her health-related language brokering encounters bring a different perspective to this study, and are explored in depth in chapter six.

Tyler

Tyler was in 7th grade during our interviews and spent his lunch and recess breaks playing soccer with his friends. It was common for students to be short of sport supplies, and, when a soccer ball was not available, Tyler settled for kick-ball or basketball. Tyler has an amiable personality, is curious, and has a competitive spirit. Teachers and school staff could persuade Tyler and his friends to do school work by lauding one of the group member's work, compelling the other group members to do their work. Tyler and his friends also got in "trouble" sometimes (an unexpectedly important issue that is explored in this study in later chapters). On multiple occasions I walked on to campus and found Tyler talking with a teacher or afterschool staff member about his behavior. I was excited to learn Tyler brokered language and invited him to participate in this study, an invitation which he accepted.

During our first interview Tyler's demeanor was calm, and he was eager to answer questions thoughtfully. He shared with me that he has a younger brother and a baby sister and

lives with his mother and father. He was excited to talk about soccer and described how his family enjoys summer because they participate in a program called Summer Nights which organizes soccer games and provides free food. The park that hosts Summer Night Lights is adjacent to the Great Summit campus. Tyler told me that he was happy that the park had a soccer field, noting that not all parks in his community have fields or grass. Tyler added that there are people in the park who do not have good health: “There are people that don’t have health and they just drink (alcohol), people who are not healthy and it is hurting (us) because they are smoking.”

As the oldest child in his family, Tyler says he is the main language broker, assisting his mother because she speaks limited English. One of the things that stood out to me from my first interview with Tyler was his comment that translating is beneficial for health “because probably you didn’t know something (that) the person taught you, and your brain is growing.” In other words, helping others exposes you to new things, and this exposure helps the brain grow.

Tyler said he enjoyed brokering language and he felt good because he was able to learn more, and it let him speak “the language of his parents” (Spanish). Not all of Tyler’s language brokering experiences are enjoyable, as, sometimes, he has to broker language for school notes or parent/teacher conferences regarding his behavior. Tyler’s language-brokering experiences for school behavior issues had a significant impact on this study’s exploration of health and what health means when we consider health literacy.

CHAPTER FOUR: EXPANDING THE DOMAIN

One of the aims proposed for this study is to illuminate the context in which language brokers mediate for health purposes. This chapter offers domain and taxonomic style analyses of the context in which language brokers mediate health, illuminating the “who, what, and where” that language brokering for health entails. These analyses help organize the different aspects and people that participate in language brokering health events. Coincidentally, examining the health contexts also offers a glance at social determinants of health affecting child language brokers and their families. Public health scholars refer to factors, contexts and circumstances that influence individuals’ health as social determinants of health. Jones et al. (2009) argue that “addressing the social determinants of health involves the medical care and public health systems, but also requires collaboration with non-health sectors including education, housing, labor, justice, transportation, environment, agriculture, and immigration.”

The concept of social determinants of health proposes that while health is greatly influenced by individual behaviors, it is heavily impacted by local and institutional structures. Issues such as affordable health care or equal access to quality care are perpetrated by institutional policies, and require social action to change and improve, hence Jones’ call for collaboration across sectors. The fields of public health and education, can work together to increase awareness of the contexts and factors that may generate poor health outcomes. This

chapter explores closely the experiences of one such population- child language brokers and their families, and provides an over view of the contexts in which they encounter health and utilize language brokering to participate in health care. An overview of findings is displayed on the following page in table 4.1, followed by a review of methods.

Table 4.1: An Overview of the Domain

Topical Areas	Space Settings	Participants/ Stakeholders	Content	Tools Resources	Health Literacy Themes
Language Brokering for doctor and medical appointments	<ul style="list-style-type: none"> • Doctor’s office • Clinic • Hospital • Dentist office • Optometrist • Follow up discussion after appointments 	<ul style="list-style-type: none"> • Doctor • Nurse • Medical Assistant • Optometrist • Dentist • Medical office staff • Parents • Siblings • Language broker 	<ul style="list-style-type: none"> • Cavities • Crown • Vaccines • Diabetes test • Physical exam • Diet • Nutrition • Acne • Allergies • Blood pressure • Medical forms • Siblings development 	<ul style="list-style-type: none"> • Office staff • Mother • Father • Previous experience 	<ul style="list-style-type: none"> • Preventative care • Health forms • Disease diagnosis and treatment • Adolescent health • Infant development (i.e. language, behavior)
Language Brokering for health related to schooling	<ul style="list-style-type: none"> • Classroom for parent teacher conference • School event • Afterschool program • Home • Mail • Doctor’s office for vaccines 	<ul style="list-style-type: none"> • Mother • Father • Teacher • School staff • Language broker 	<ul style="list-style-type: none"> • School behavior • Academic ability development • Vaccination requirements • Dental resources 	<ul style="list-style-type: none"> • Mother • Father 	<ul style="list-style-type: none"> • Behavior related to health • Prose, document, and digital literacy skills
Language Brokering for medicines and supplement *Underlined related to one participant in particular	<ul style="list-style-type: none"> • Home • Stores • <u>Public Spaces</u> • <u>Bus</u> • <u>Product information workshops</u> • <u>Social Media</u> • Online (at home) 	<ul style="list-style-type: none"> • <u>Customers for mother’s health supplement sales</u> • Mother • Father • Pharmacy worker • Grandmother • Siblings 	<ul style="list-style-type: none"> • Health product supplements • Information for old medication • Prescribed medication for high blood pressure • Over the counter medicines 	<ul style="list-style-type: none"> • Internet • Mother • <u>Company workshop on products</u> 	
Language Brokering for health insurance	<ul style="list-style-type: none"> • Mail/ letters at home • Telephone 	<ul style="list-style-type: none"> • Medical office staff • Mother • Father 	<ul style="list-style-type: none"> • Insurance plans • Personal information for medical forms 		<ul style="list-style-type: none"> • Health care insurance • Procedural experience

		• Telephone operator			• Health care document literacy
Language Brokering for health related miscellaneous events	• Flyers about health resources from local library & school	• Mother • Father • Siblings • Language Broker	• School flyers about dental services • Library services for optometry • Personal internet searches for health	• Internet	• Procedural experience specific to navigating health care • General health issues

Review of Methods

The domain analysis approach for this study was inspired by Orellana et al. (2003) and is guided by James P. Spradley’s *The Ethnographic Interview* (1979). The domain analytical process began with coding of interview data using NVivo software, which allows for multiple levels of coding. The first level of coding was dedicated to identifying characteristics, or topical areas, which language brokers discussed in describing their experiences. These characteristics, included: activities, spaces, participants, health topics, content, health literacy, and tools/resources, described in participant interviews.

The second step in analysis was dedicated to grouping these characteristics and organizing data in a meaningful method that exemplified the most shared themes or topical areas of health which study participants discussed. There were four major topical areas that I identified: 1) doctor/ medical appointments, 2) schooling/ education requirements, 3) medication/supplements information, and 4) health insurance. A complete list of sub-codes is available in the methods chapter (p. 45). The following subsections reviews each of the topical areas. Each subsection also discusses analysis and ways in which findings may enhance recognition of health, in spaces and activities that might be overlooked.

Doctor and Medical Appointments

Studies have found that the idea of children’s participation in health care as language brokers or ad hoc interpreters concerns practitioners, as the accurate translation of medical information

might be critical and the responsibility might place emotional stress on children (Cohen et. al., 1999). There are a range of health needs and levels of urgency, for example health needs can include low stakes, everyday health issues like a common cold to more serious issues like pneumonia. Participants for this study mostly encountered language brokering activities related to health outside of medical offices, and brokered language for health related issues at home and in their neighborhoods for lower stake or less critical health issues. Still, most participants did have experience language brokering at a doctor's office or medical appointment, usually for preventive care.

Four participants in this study discussed brokering language for health in the presence of doctors or nurses. None of these encounters involved high stakes or sensitive health information that could be considered life threatening. Most of the medical visits described by participants were for preventive health care. Elle, Dee, and Lacey described language brokering for doctors and nurses at appointments for themselves and their younger siblings. Elle and Dee brokered language for physical exams of their younger siblings, and both described interpreting questions and answers between practitioners and their parents. They also both described contributing to the physical exams by sharing information with the health practitioner in regards to their siblings' health or development. For her younger sister's appointment, Elle brokered language about "how she is doing at home, if she is doing things differently, like walking and stuff, and she is growing." Elle also added to what she brokered for her mother and doctor by sharing things she had seen her younger sister, Lily, do at home. Elle described to the doctor Lily hiding toys, food, and pointing to objects. I asked Elle why she thought the doctor might want to know these things about Lily, to which she responded that the doctor wants to know how Lily is growing and

learning things. Similarly, Dee brokered language for her younger brother's doctor's appointment.

(I translated) how tall my brother is, since he was like chubby, how he has to plan out his eating, but he didn't eat a lot, he just wouldn't do anything. So my dad would tell me things in Spanish, things like, would help him, what we do at home, feed him like little portions, we won't feed him a lot, and we would go outside, and go play soccer with my dad."

Dee remembers the general content of her brother's appointment, and says that from this encounter she took away the importance of balancing activity and diet. She also noted that the doctor was nice, because "she wouldn't be like, those doctors that just check you, she would be like 'how is school going?'"

I asked Dee what she thought of her brother's doctor appointment, and she responded:

I felt, like my parents were trying to help my brother. Sometimes, he doesn't want to do it. (parents tell him) but you have to do it, it's for your own good. The doctor said to keep on doing it (encouraging son to eat healthy and exercise), and that if he is hungry in the morning or during midday, he can have a snack like a yogurt. Don't give him like a big portion.

As part of my domain analysis, I coded Dee's quote as a language brokering event at a doctor's appointment- a formal medical space, and the smaller sub-themes as a) participants: the doctor, her father, her younger brother; b) content: diet, nutrition, physical activity; c) health literacy themes (based on content): preventative health care, health behaviors, diet and exercise. For this particular encounter Dee did not rely on tools or resources in the encounter; however, Dee might have drawn on previous experience as a resource, particularly her experience

witnessing her own mother broker language for healthcare issues (Dee's mother is a telephone interpreter and sometimes is assigned calls for health care providers and patients).

It was clearer that Lacey was able to draw from previous experience when she language brokered for her younger sister's dental visit:

Lacey: Yeah last time we went to the dentist, and then, they said my sister didn't have anything, its like a thing they put you but it fell off, so they needed to put it again, so I told my mom they needed to put another one because it fell off

Krissia: Do you know the word?

Lacey: No

Krissia: Do you know the word in Spanish?

Lacey: Casco.

Krissia: Casco?.... Is it crown?

Lacey: Yeah! (expressed with excitement)

Krissia: When they said crown, you knew it was casco, and you were able to tell her?

Lacey: Yeah, because last time we went to another one, another dentist since I was not born here, so I go to a different, and the nurse there does talk, like the doctor does talk in Spanish, and then she told us that I needed one and she said "casco," and that's I how knew that it was that.

Lacey's experience supports the idea that prior language brokering events become experientially valuable, as the memories of past experiences can reemerge for language brokers in new or similar situations. Equally important, they are events that act as opportunity to develop knowledge- in this case about dental health. Her experience also highlights a health equity issue- Lacey shares that her dentist is different because she was not born in the United States. I coded

Lacey's encounter as occurring in formal medical space, and the smaller sub-themes that made up the environment for this encounter as a) participants: dentist, parent, younger sibling; b) content: cavities, dental care; c) health literacy themes (based on content): experience with health care access based on immigration/birth d) resources: previous experience, bilingual dentist from previous dental visit.

Unlike other participants, Berto language brokered at medical appointments for himself (not siblings or other family members). His experiences focused on issues bothering him, which he learned were related to adolescence:

I had to go to the doctor's, and I had to help a little (language brokering), with my mom and a lady, this lady (nurse), she could only speak English, and she wanted me to translate for my mom, because she (mom) had so-so English. So I translated for her, and tell her what she was saying for my needs. For example, when she put the needle, it was for this thing that was going to help me, I forgot what it's called. Something I was asking for was this (rubs for arm), for some reason I have a bunch of pimples right here, but she said it was natural causes, so I had to translate that for my mom.

In the excerpt above Berto describes a medical appointment in which he brokered language for a nurse and his mother. Not included above is Berto explaining that he was also worried about dandruff which he explained was a "work in progress." Berto's description of the encounter was brief; nevertheless, this particular encounter is noteworthy because it provides a glimpse into the health concerns of an adolescent boy. There is limited research on the health concerns of adolescent boys, and research suggests that adolescent males seek health care at lower rates during their transition from adolescence to adulthood than their female counterparts (Marcell et al., 2002; Westwood, 2008). Berto's experience offers a glimpse into one such encounter. For this

encounter I coded Berto's experience as taking place in formal medical space- a doctor's office, and the smaller sub-themes that made up the environment as a) participants: Berto, doctor/nurse, mother; b) content: dermatology, skin and c) health literacy themes (based on content): communicating health needs or concerns.

Elle, Dee, and Lacey mentioned in other parts of their interviews asking for help when they encountered an unfamiliar word. Commonly office staff ("helpers," medical assistants, and secretaries) were helpful if they spoke Spanish and English. Language brokers also mentioned discussing medical appointments afterwards on the way home or at home. Asking for assistance from someone more familiar with health or language falls in line with the concept of Zone Proximal Development (described in depth in literature review) and situates the language broker as the novice, the practitioner or parent as the expert, and sometimes roles shift when the language brokers is more knowledgeable with language, health issue, or their own body and health needs.

The purpose of the doctor appointments shared by Elle, Dee, Lacey and Berto, are centered on preventive and low stakes health care. Preventative care is an important concept for health literacy as it deals with understanding how to prevent disease and illness. Preventative care plays a critical role for health outcomes, quality of life, and has tangential benefits for financial and personal well-being. The examples in this section act as new and additional perspectives to language brokering literature that may focus on high stakes medical encounters, or health care that takes place in hospitals or at doctor offices. Language brokers' participation was helpful for the other participants of the encounters, and also valuable for language brokers' understanding health issues and for gaining experience on navigating health care. For example, Elle recalled describing her infant sister's development (crawling, eating, drinking, mobility, and

play habits), Dee described interpreting the physical exercise and diet practices her father described about her younger brother, and recalls discussing how to prevent obesity. Lacey also was present in appointments that involved preventive care dental health. Other health issues not explored in this section but present in interview data included, vaccines and diabetes which are explored in other subsections of this chapter.

A more extensive representation of the subthemes explored within formal medical spaces is presented in above in table 4.1; one issue that is not explicitly labeled in table 4.1 are the social determinants of health. This is because identifying social determinants of health was not an intended research aim for this study. However, it is possible that as a consequence of the domain analytical process, data from this study might support research efforts on social determinants of health. For example, Lacey believes that her dental provider differs from that of her sibling because she was not born in the United States. Regardless whether Lacey is correct, there is an underlying suggestion in this small comment, that immigration status effects health care access and may act as a social determinant.

Schooling & Education

In an earlier language brokering study, Tse (1995) focused on the implications of language brokering for students' school performance and language development. Tse's findings included 1) language brokering enhances students' linguistic development, 2) language brokers play critical roles in their communities, and 3) language brokers make important decisions about their education. Participants for this study discussed an aspect of education that builds on Tse's findings regarding language brokering and education: language brokering for education is language brokering for health.

Health and education are intertwined far before students step inside a classroom; in fact, one of the key requirements to enroll a child in school is good health. Berto recalled his appointment for his vaccines:

She (doctor/nurse) kept saying you missed 3-4 shots since you were seven years old and you have to take them either now or you may not enter seventh grade. She (mom) told me tell her (doctor/nurse) I forgot how many shots I (Berto) took with the little orange slip (immunization record), and she (mom) said that to tell her I forgot to bring the little slip that say your little shots since you were a little kid, and then I told her and she (doctor/nurse) said ‘okay ma’am, okay, all you have to tell me is how many you need...’

For this encounter, the physical setting is a formal medical space, same as the previous subsection, which focuses on doctor/medical appointments. However, I coded this encounter as language brokering for school/education, because the purpose of this medical visit was rooted in education, specifically education access. For Berto’s vaccination appointment, I coded a) participants: Berto, doctor/nurse, mother; b) content: vaccination, schooling/enrollment requirement and c) health literacy themes (based on content): disease prevention via vaccine.

Aside from vaccinations, which many middle school aged students receive as part of school enrollment requirements, participants also shared their unique encounters brokering language for health at school. Tyler described brokering language for his parent teacher conference, as well as for notes regarding his behavior (these encounters are explored in the following chapter 5). Initially, Tyler’s parent teacher conferences were not coded as language brokering for health despite these examples being part of Tyler’s responses to interview questions about language brokering for health. However, reviewing audio of my previous interviews with Tyler, I was compelled to ask Tyler why he chose to discuss with me that he

language brokered for his parents-teacher communication for our interviews, he replied “my behavior is my health.” For Tyler’s parent teacher conferences, the following was identified a) setting: school; b) participants: Tyler, teacher, mother; c) content: behavior, consequence and d) health literacy themes (based on content): behavior.

Behavior is a critical component of health. Public health and medicine both use the term *health behaviors* to discuss the actions, lifestyle choices, and habits that individuals enact in their lives that may lead to or prevent disease. Arguably, one of the very first places children learn about behavior is in school. Behavior is often discussed in teacher’s evaluation of children (whether a child is social, follows direction, disruptive, etc.). Teachers, alike, are evaluated on behavior, specifically their skills to manage a classroom, and it is not uncommon to see behavior charts or discipline charts on classroom walls. Furthermore, behavior, from a parent’s perspective, can be considered a safety and health issue. Elle’s mother, Sonia, shared that one reason her children were enrolled at their current school was because it was smaller than her son’s previous school, allowing a better staff to student ratio for supervision.

Study participants also encountered health in more direct ways at school, such as the school’s policy on no outside food or sweets. It was well known among students and their parents that cupcakes for birthdays were not allowed, and students bemoaned the healthy snacks provided by the school, such as sunflower butter instead of peanut butter for their carrot sticks. In class, students participated engaged with health curriculums during physical exercise (P.E.) and seventh grade students received weekly health education called FLASH (comprehensive sex education curriculum). When I asked Jennifer about who she talks to about health she shared “right now we’re learning about FLASH, sex ed. We’re kind of getting into healthy dating and how to protect yourself and certain things.” I asked Jennifer if she had encountered similar health

information at home, she said that her mother does not usually discuss sex health with her (and her siblings) until they are in high school, unless their mother becomes aware that they are learning about it in school. Jennifer did not mention language brokering any FLASH or sexual education information for her parents, however, FLASH serves as a solid example of health curriculum that might prompt other language brokers and their families to engage in conversation about health issues.

Other possible ways in which students and their families may encounter health care opportunities/services at school include: working with behavioral assistants, psychological counseling, free lunch and dinner programs, and health care services through county, school district or partnering organizations. For example, Tyler shared that school sent home notices about dental services, a service he and his family did not pursue because they had just visited a dentist. There is growing research indicating promising results for communities that have schools with wraparound community services and school based health centers. If this trend continues there is greater probability that schools may become more directly part of health care, compounding education's existing impact as a social determinant of health. Education is widely recognized as a social determinant of health, and put simply, more or higher quality education is linked with positive health outcomes.

Medication and Supplements

In 2005 a New York Times article reported on a precarious child language brokering case, in which Jue (12 years old at the time) language brokered medication instructions for his mother, Ker, a Laotian refugee. Jue misinterpreted the dosage instructed by Ker's doctor, an error that lead her to take the wrong dosage and experience dizziness. The article states "the error

did not cause lasting harm, but it is the kind California medical officials want to prevent” alluding to a California State bill aimed at prohibiting children from interpreting medical information (Associated Press, New York Times, 2005). Interpreting errors are one reason relying on child language brokers for health, make practitioners, policy makers, and in general adults anxious and uncomfortable. Medical appointments and emergencies were uncommon for participants in this study, however, brokering language for prescribed medicine, over the counter medicine, and health supplement directions was an activity nearly all participants described experiencing.

In regards to medication, three participants recalled specific times they helped their families by explaining or translating medicine uses or instructions. Tyler described assisting his family to investigate the uses of old prescribed medicines, eventually he and his family turned to the internet (google, specifically) to research the medicine’s uses. Elle’s main health language brokering activity was helping her grandmother take her prescribed medicine, multiple times a week. Dee language brokered over the counter medicine and her father’s medication occasionally, when her mother was not present. Tyler, Dee, and Elle’s encounters were similar, for all three the following were identified a) setting: home; b) participants: parent, doctor or practitioner who prescribed medicine; c) content: headache, fever, high blood pressure, medication instructions, dosage; d) health literacy themes (based on content): treatment, understanding/following medication instructions.

Jessie’s encounters with health supplements were unique, because most of her language brokering experiences were based in transactions her mother made as part of her work selling products. Jessie described regularly explaining supplement uses and directions, but did not specifically describe interpreting supplement bottle directions. She drew on her mother’s

teachings about the supplements, her family experiences, and information she learned at informational workshops presented by health supplement's company to explain uses. In addition to explaining supplement uses, Jessie also occasionally promoted the supplements on Facebook. Jessie also used "testimonials" to explain the uses and benefits of the health supplements her mother sold. The settings identified in Jessie's encounters include Jessie's home, community/neighborhood, bus, and stores; participants included Jessie's mother, the health supplement company, and regular, new, and potential clients; and the content Jessie language brokered included health benefits of supplements and preventable illnesses. In regards to health literacy, Jessie's experience is complicated. Jessie learned about health supplement uses and benefits from the supplement company workshops and from her mother, and while she has been exposed to experiments and relates the benefits of the health supplements to personal family experiences, her experience and knowledge may bring forth questions about the legitimacy of the health literacy grounded in supplement products. Health literacy refers to a person's skill and ability to understand and communicate health information, issues, concerns and make decisions. Jessie has some of these skills, what may be absent from Jessie's health literacy skill set is the ability to identify potentially perilous or questionable treatments and scientific evidence.

In general, language brokers' encounters with medicine directions seemed to be low stakes. Most over the counter medicines included directions in Spanish, and are usually comprehensible to the general population. While, Tyler, Elle, and Dee language brokered prescribed medicines, nearly all three had some sort of resource: Tyler worked in conjunction with his family and the internet; Dee's father was able to ask his wife for help with directions if he felt Dee was unsure, and Elle had regular practice language brokering the same medication to

her grandmother. The health supplements Jessie's mother sells seemingly fit into the vitamin category, and no evidence has been presented to suggest the products as harmful.

Health Insurance

Most participants had peripheral experience with health insurance, such as witnessing their parents presenting insurance cards at medical appointments or signing insurance forms. Two participants did share experiences brokering language for health insurance. Elle recalled a frustrating encounter in which she struggled to mediate a phone call between her father and a health insurance service operator. Elle found the call somewhat tedious and challenging, as she had to interpret many details (father's address, age, occupation etc.) and also mediate details pertaining to health insurance options. The operator described different plan options, Elle relayed these options to her father. Dee's father asked questions which Elle then asked to the operator, in English, and also explained to the operator her father's insurance preferences (regarding co-pay and coverage).

They asked him a lot of questions, and I am like dad ' te preguntan esto, esto y esto,' ('they are asking this, this, and this') and he is like 'qué?' ('what?') And I would be repeating the stuff again and again. I kind of got frustrated because he wouldn't understand it. They asked how old are you, how long have you been working with the company.

Elle began to describe to me a health ID card, but thought it would be easier to show me her card: "It's like this card, it shows your name, the day you were born, and that MRN (medical record number)... I think they check, who is it gonna be, and to show the doctor because many

people have the same name, same last name...” Similarly, Tyler tried to make sense of medical identification/ health insurance cards:

Tyler: When the little card comes, the medical thing, when they (parents) asked for it, it came (in mail). She (mother) needed help signing some papers and I helped her and then I didn't get some parts either and then my dad helped. Most of the time me and my dad helps her...They ask for it (card) for you when you go to the doctor. Where we go they asked for a card because if you don't have it then they can't attend you.

Krissia: Why can they not attend you without a card?

Tyler: Because you have to wait until everyone that has an appointment because if you go randomly you might have to wait more...

Language brokering events for health insurance, similar to brokering language for medication/supplement, entailed the same contextual characteristics. The settings in which health insurance was encountered was usually at a medical office and home. Participants included family members, health insurance companies, and practitioners who without health insurance may not be able to treat patients. Health content and literacy was mostly related to procedural and basic information needed to enroll and use health insurance.

Health insurance also surfaced in my interview with Lacey when she describe how she came to learn the English word for crown at her own dental appointment.

Yeah, because last time we went to another one, another dentist since I was not born here, so I go to a different, and the nurse there does talk, like the doctor does talk in Spanish, and then she told us that I needed one and she said “casco” (“crown”), and that’s I how knew that it was that.

Lacey insinuates she receives care from a different dentist because she was not born in the U.S., this indicates that she is possibly uninsured or insured under a different program than her siblings because of her immigration status. She did not mention interpreting for health insurance, however, in examining the ways in which language brokers encounter health insurance matters. It matters because even when children and young people do not broker language for insurance, their encounters and their thoughts about the encounter are relevant for research as they help shed light on some of the lesser known issues about health care access and equity.

Conclusion

The data explored in this chapter suggests language brokers could greatly contribute to the development of health literacy frameworks. Traditional health literacy frameworks are recently extending beyond basic health tasks (i.e. reading medication bottles or making medical appointments) to include social justice ideas like social action, social influence, and advocacy (Nutbeam, 2000). Language brokers for this study encountered health issues that required skills beyond basic reading and math. For example, Dee used emotional intelligence to mediate information during a frustrating event between her father and a health insurance operator; and Jessie is regularly exposed to the business and marketing aspects of health care in her language brokering for her mother's work. These two examples do not easily fit into an existing health literacy framework, yet, are incredibly important when we consider how health care is organized as a commodity, and patients are treated as customers.

Language brokering has been described as ubiquitous; it is happening all around us and is critical for social and economic relations, yet it remains hidden in plain sight. The domain analysis approach brings to the forefront aspects and intricacies of language brokering that are

less visible. For example, in distinguishing participants, it is apparent that immigrant and immigrant families are not the only who withstand to gain from children's linguistic and cultural mediation. Institutions and professionals such as health insurance operators, doctors, nurses, teachers, and pharmaceutical and health supplement companies benefit from these young brokers ability to communicate information and services to others. For language brokering research focused on health, this analysis reveals that language brokering for health occurs across daily life activities, and not only in traditional health centered spaces. For health literacy research, this analysis supports the idea that there is a need to consider new and different skills young people leverage to accessing and making accessible and health care and information. Finally, an unexpected finding from this analysis and study (which are explored in greater depth in chapter 5) is education's role in the health domain. Research in public health and education regards educational attainment as a critical factor for health-- attributing literacy, numeracy, mathematics, and critical thinking skills vital for making informed health decisions. However, as this chapter highlights, a less studied aspect of education's importance to health is schools as resources for health, and as spaces in which health occurs, and health skills are practiced and developed.

CHAPTER FIVE: DEEPER INTO THE UNEXPECTED

“Health literacy means more than being able to read pamphlets and successfully make appointments. By improving people's access to health information and their capacity to use it effectively, health literacy is critical to empowerment.”

The World Health Organization (WHO) 7th Global
Conference on Health Promotion

The WHO’s statement brings to the forefront two important issues at the heart of this study. The first issue is health literacy and what health literacy means. The more popular definition of health literacy identifies the concept as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions” (U.S. Center for Disease Control). It is my position that the concept of health literacy is relatively new. Varied definitions have emerged in the past two decades, and some researchers suggest the first formal definition was developed as recently as 1999 (Berkman et al., 2010). This study does not introduce a new definition of health literacy; rather it presents evidence current health literacy definitions and frameworks may still be incomplete since not all the skills and experiences of language brokers in this study fit within their margins. The three participants in this chapter encountered unique aspects of health while language brokering and shed light on the different skills and health issues that may be overlooked when conceptualizing health literacy. The latter part of The WHO statement, “health literacy is critical to empowerment,” brings forth the second issue this study engages with: the relationship between language brokering and empowerment. In mediating language, culture, and information, language brokers make it possible for others to participate in society, the economy, and, as this

study examines, health literacy. Conversely, it is also possible that language brokers themselves are empowered through language brokering.

This chapter explores the unique health language brokering experiences of three study participants: Jessie, Tyler, and Dee. First, I explore Jessie's experience with language brokering for her mother's work as a health supplement saleswoman. Jessie's interviews shed light on a rarely documented CLB activity, an activity that intersects language brokering with business and health. Second, I explore Tyler's language brokering for schooling and examine how Tyler links language brokering for classroom behavior notes to his health. Related to Tyler's experience, this chapter also considers other schooling issues that can be considered a part of health. Lastly, Dee's experience illustrates a very special and rare language brokering situation: Dee is not only a second generation language broker, as her mother also language brokered for her own parents, but Dee's mother is a phone interpreter who commonly helps health providers, insurers, and patients communicate.

Jessie and Healthy Way

Jessie was 12 years old during our interviews, and, in addition to being a middle school student and an Instagram fan fiction author, she was also an active language broker. Jessie brokered language for her mother daily; this includes for her mother's work as a sales representative for *Healthy Way (pseudonym) dietary supplements. Healthy Way uses a door-to-door salesperson business model to sell health-promoting products. Jessie's language brokering role is very distinct for both health and everyday language brokering because child language brokers usually help their family members understand information as consumers or patients. Jessie's role is to help her mother as a sales person and communicate what her mother knows about health products and health in order to address the consumer's needs. Jessie shared with me that she

brokers language for customers at stores, on buses, and on the street. Usually she is prompted by her mother to approach a person:

“I help her (mom) out with people who speak English, like (if) this lady is sick and stuff and (mom will say) why don't you tell her what we work on? I explain what we work on, that it helps your health and how natural it is, even babies can drink it. I even give like... how can I say this... testament not testament... testimonios (testimonies)”

I asked Jessie to describe a typical interaction with a new customer, and she described an encounter with a woman named Karen she met while walking on the street with her mother:

I started talking to her (Karen) about the products ... (I told her) everything that happened with me, my uncle, my dad... she said I know more than I am supposed to because I am a little girl, and that when I get older I'm gonna be really smart and stuff, because I know a lot of things about it, and I could really help out.

In this quote Jessie refers to her testimonies as “everything that happened to me, my uncle and my dad.” These are the three examples (testimonies) Jessie regularly shares with customers.

When I asked Jessie about “everything that happened” to her and her experience with Healthy Way products, she explained she suffered from chronic stomachaches, and that, once she began taking a Healthy Way product, her aches subsided. She did not indicate if she knew the cause of her aches, or how the product helped the condition, but she seemed confident the products helped her. Her testimonies regarding her uncle and father are more complex, as they both dealt with more serious illnesses, a fatal heart condition and cancer, respectively.

My uncle that passed away, we have given it (product) to him. It won't harm you if you stop drinking it or anything, but since he was really sick, his heart was already *inchado* (Spanish for swollen) and it was like he was so sick, so if he stopped drinking it (health

product) his heart would keep on growing... he ended up dying. Nothing bad happens if you stop drinking it but since he was really sick he died. (...) I give (testimony) of how he was in bed all day and started throwing up blood, then we started giving it to him and then we came back to Mexico he was already going everywhere and doing chores and fixing his own clothes.

Jessie emphasized throughout our interviews that Healthy Way is an “all natural company” and that the products are very safe, adding that “even a baby” could consume the products. In regards to her uncle’s experience, she reiterates that his death was due to his illness and not related to the product. The testimony she shares with customers is that the product helped him recuperate from his symptoms and enabled him to become more active. Being active, socially and physically, is thematically present throughout my interviews with Jessie and in her ideas of what good health entails.

Jessie’s testimony regarding her father is also straightforward:

My dad has been drinking the products, he stopped, but he doesn’t have cancer no more, because of the products he has been drinking. And he has been fighting the cancer, and riding bikes and stuff, and being loud, and scolding me.

Sensing from her tone the sensitivity of the subject, I shifted the conversation in a more general direction and asked what she thought helped fight cancer.

Jessie: I think that people being strong, and keep them (people with cancer) fighting, and do what they used to do when they were teenagers. If they did drugs and smoked and stuff, stop and go outside more. Or even play with their kids. If it’s kids that have cancer, I would also say to keep your son or daughter away from you if you are smoking. If you have cancer be happy, and go outside, and do all the things you always wanted to do, and

start fighting cancer, and don't give up. Being happy makes you be more active, and more active fights the cancer. If you don't fight the cancer, at least you got to do more things than you usually do.

In this statement Jessie relates a variety of behaviors (being active, being outside, not doing drugs or smoking) to being healthy and as useful for combating cancer. It is unclear if she associated Healthy Way products to directly addressing illnesses or to helping people become active and subsequently helps them to fight against illness. She did distinguish Healthy Way products' ability to help with emotional distress: "The product would kind of help, but not completely, because if you're sad all you would have to do is put (product) in water and you drink it, and since you're busy drinking the water you stop crying, it would calm you down for a bit."

She offered an example of a time she was upset and crying, and felt her mouth become dry which prompted her to drink water, causing her to forget she was upset. Jessie also shared with me that she thought her temperament is similar to her father's, adding that she throws tantrums, and that this could affect her health: "for me, it's affecting me, when I grow up and I won't have any friends... I guess it's going to affect me in some way." She also adds that when her uncle passed away, her mother was upset and Jessie gave her water continuously to help her "calm down."

To examine Jessie's understanding of Healthy Way products' effect on health, I asked her how she learned about the products. I expected Jessie to say her mother had taught her to describe the products' uses and ingredients; instead, Jessie described to me weekly workshops she attended (detailed below).

When I was a little girl, around six-seven-eight, I used to go with my mom when she would go to her informations, every Monday and Wednesday. We would go there from six to twelve or one in the morning. All I would be doing is writing, writing, writing what they said, but I don't go with her no more so I don't write, but I write my fan fiction. (The workshop presenters discussed) how the product works. That's where I learned most of the things... After I turned nine, I stopped doing things and I started using their Internet. But what my mom didn't know was that while I'm using my phone, things that I don't want to hear (about the products) but I still hear get stuck in my head. So I would remember things. My mom would notice that, 'how do you know that?' Even if it looks like I'm not listening, I'm listening... so next time I know what to say.

In this statement Jessie described Healthy Way workshops, which supported sales members better understand and explain product uses and benefits. Jessie says that when she began going to the workshops she paid attention, diligently writing down what the company representatives discussed. However, her attentiveness shifted after she turned nine years old and became more interested in using the Internet (Wi-Fi) available at the workshops. While distracted by the Internet on her cellphone, Jessie paid indirect attention to the presentations, later surprising her mother with information from the presentations.

Jessie's description of the Healthy Way workshops were general, so I wondered if she could recall any specifics or anything memorable. Upon my questioning her about this, her face lit up, and she described one specific presentation:

I was using my phone and they were doing this thing where they get a regular cup of water and another water with the product in it, and they would put a wire and it's ripped and it has a light bulb on it... so if you put it (light bulb) in a regular water it won't turn

on but if you put it in the product (water) it turns on... I think it meant that it gives you energy. They say that basically it helps your cells and stuff.

The demonstration Jessie described to me is reminiscent of experiments done in science classrooms, specifically one that demonstrates how salt water contains more ions than water alone and can conduct electricity for a light bulb. The light bulb in the Healthy Way water probably contained more ions and was able to conduct electricity. This presentation stood out for Jessie, and she sounded regretful to no longer have the video on her phone to share with me.

In addition to Healthy Way presentations, Jessie's mother also taught her about the products. I was able to see one such interaction when I interviewed Jessie and her mother. I was interested in learning more about Jessie's knowledge of the ingredients and uses of the products. Prior to our meeting I researched the products online and surveyed the vocabulary, ingredients, and purpose of each product. Healthy Way has various products, such as capsules, pills, powders, drinks, and a pet supplement. I asked Jessie about four of Healthy Way's most popular products (all pseudonyms): Royalty (purple rice based supplements); Force (brown rice supplement); AXC (humic and fulvic acid based); and ACTV (liquid based formula- no specific ingredients listed in website.)



Benefits:

- Added protection against chronic illnesses.
- Added protection from free-radical damage.
- All natural and gluten free.

A dietary supplement made from the purple rice. The natural pigmentation of this specialty rice offers about six times more antioxidants than non-pigmented rice. This is due to the presence of anthocyanins, which are strong antioxidants that studies have shown offer many health related benefits.

Fig 5.1 Healthy Way

Krissia: Do you recognize this product (picture of Royalty product)?

Jessie: Royalty.

Mom (to Jessie): Lo poco que sabes le tienes que decirle. Este es para regenerar la células.
(The little you know you have to say. This one (Royalty product) is to regenerate cells.)

Krissia: How would you say that to me, si fuese un cliente? (If I were a client?)

Jessie: It's for health.

Krissia: Do you know anything about AXC (a different product)?

Jessie: It's black, goes in water, and doesn't taste like normal water.

Krissia: What about Force (different product)?

Jessie: Same as this one (points to picture of Royalty), different name and different color.

Krissia: Why is it a different color?

Jessie: ¿Porque, el primero es morado verdad?

(To mom: Because, the first one is purple right?)

Krissia: Sabe para qué es el Force?

(Do you know what Force is for?)

Jessie: Pa lo mismo.

(For the same...)

Mom: Pa lo mismo, para regenerar la células, ayuda el Royalty, ayuda gente diabética.

(For the same... to regenerate cells, helps Royalty, helps diabetics.)

Krissia: Can you tell me what she said?

Jessie: I wasn't listening...oh! It is the same as Royalty, It helps Royalty, but it helps you more...

Krissia: Do you know what it is for?

Jessie: She said it's the same as this one (points to Royalty). This one (points to Force) helps that one (points to Royalty). (Jessie mouths slowly "to regenerate.")

Jessie's version of what her mother said was much barer. For example, instead of explaining that Royalty helps with cell regeneration (as her mother did in Spanish), Jessie said Royalty helped with health. In addition to asking about the products, I also asked Jessie about different terms and ingredients I found listed on the Healthy Way website to explore her

familiarity with and understanding of the products. The table below lists terms and ingredients from the Healthy Way website Jessie recognized and was able to describe, terms and ingredients she recognized but could not describe, and terms and ingredients she did not recognize.

Terms/Ingredients recognized and able to describe	Terms/Ingredients recognized but does not describe	Terms/Ingredients did not recognize
<ul style="list-style-type: none"> • Chronic illness • Free Radicals 	<ul style="list-style-type: none"> • Fulvic acid • Humic acid • Amino acids • Minerals • Vitamins • Immune System • Hydration 	<ul style="list-style-type: none"> • Anthocyanins • Antioxidants • Polysaccharides • Polypeptides • Microbial

Table 5.1 Familiar Healthy Way Terms

There are two terms that Jessie recognized and described: chronic illnesses and free radicals. She described chronic illnesses as “bad sickness... I know what illnesses (are), and I think chronic is bad.” She described free radicals as bacteria, adding “radicals, I don't know, I have heard it before, but I don't know.” Her mom interjected, “radicales, son los que recibimos en el ambiente, en la calle.” (Radicals are what we encounter in the environment/atmosphere, in the street.) Jessie eagerly replied to her mom, “Bacteria! The bacterias we’re breathing in and out, that are hitting our face gives us sickness, this product helps with that.” I asked her mother if radicals are considered bacteria, she said they could be.

What does Jessie’s experience mean for health literacy? In analyzing data from my interviews with Jessie, I considered the two issues discussed at the introduction of this chapter: health literacy and empowerment. I reviewed interview data for actions, experiences, and statements that expressed health literacy components described by two renowned programs: CDC’s National Health Education Standards (NHES) and National Assessment of Adult literacy

(NAAL). I also drew from Nutbeam's (2000) health literacy components to explore health knowledge and skills minimally considered or not considered at all by NHES and NAAL.

The most prominent health themes present in my interview data with Jessie are health promotion and prevention. For example, her advice for fighting cancer includes not doing drugs, not smoking, spending time outdoors, and spending time with family. Jessie also attributes emotional behaviors to long-term health; she notes that being happy and being persistent (not giving up) can be instrumental for fighting cancer. Additionally, when I asked her if she thought being angry or short-tempered could affect health, she said she thought that it might cause her not to have friends when she gets older, possibly implying that having friends is important for health. Health promotion and prevention are key themes in NHES's and NAAL's health literacy frameworks. In regards to NHES, Jessie's experience and knowledge illustrates standard 1 (students will comprehend concepts related to health promotion and disease prevention to enhance health) and standard 7 (students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks). Conversely, the NAAL framework has a narrower focus on traditional prose, documents, and quantitative health literacy. While the majority of Jessie's work with Healthy Way was verbal, she did use the Internet to look up translations of words, created Facebook posts for Healthy Way products for her mother, and her mother mentioned that Jessie has helped with client payment transactions.

Jessie's health language brokering experiences coincided with each of Nutbeam's (2000) health literacy components (functional, interactive, and critical) to varying extents. Nutbeam describes functional healthy literacy as being able to communicate information relevant for health; Jessie exhibited this functional literacy capacity when she discussed with me the benefits of Healthy Way supplements and the health risks of being unhappy or doing drugs. Interactive

health literacy is what Nutbeam refers to as the development of personal skills to act independently on knowledge (for health) and the capacity to influence others and social norms. Jessie's experience promoting health products made it possible for her to understand how to influence others' health (for example, by offering testimonies). Lastly, Nutbeam's critical literacy description includes personal and community empowerment; to this end, Jessie as a language broker empowers multiple people. Jessie enables her mother to do business with a population (mono English speaking) she would otherwise be unable to reach. Consequently, Jessie assists her mother (a single parent) to financially support their family, although it is difficult to quantify exactly how much her language brokering contributes monetarily. Jessie also helps people to access and learn about health products that are not available to them at stores or through doctors, but might be familiar with through other channels and comfortable using. This is particularly important for populations that are illiterate, uninsured, unfamiliar with dietary supplements, and/or have a limited social network to tap into for health information.

One of the more complicated aspects of Jessie's language brokering is its enmeshment with dietary health supplement information. Dietary supplements do not require to be approval from the Food and Drug Administration (FDA), the federal government agency tasked with regulating food, health, and cosmetic products. While dietary supplements are required to be labeled with truthful information, companies are not required to submit scientific evidence of their effectiveness; this policy creates a caveat emptor (buyer beware) condition. Jessie and her mother follow FDA dietary supplement regulations by never claiming Healthy Way products are medicines or can cure diseases; instead Jessie says that Healthy Way *helps* with health problems. Additionally, she does not refer to Healthy Way products as medicine or supplements; she is careful to call them products.

Examining Jessie's experience with health supplements is especially valuable for health literacy because the circumstances and policies surrounding their effectiveness and safety are loose and different from pharmaceutical medicines. Arguably, critical thinking skills, knowledge, and/or experience is required to understand that health supplement products are not medicine and not scientifically proven to be effective. Still, products such as Healthy Way supplements are more easily accessible because they do not require a doctor's visit, prescription, and sometimes not even a trip to a store because salespeople come to you. The accessibility of such products makes it all the more critical for researchers to consider what kind of skills health literacy frameworks should include to prepare and support individuals' decisions when it comes to health management with supplements. Lastly, Jessie challenges notions that children from immigrant households are exposed to less reading, writing, or science ideas; she encountered health material and experiments from ages 7-9 (in Healthy Way workshops), and practiced digital literacy by searching word translations, and writing on social media accounts (to help her mother promote healthy way and for her own fan fiction).

Tyler

Tyler's experience with health is seemingly less direct than Jessie's experience, as his language brokering for health involved less medicine and illness issues, and more behavioral and schooling themes. During our interviews Tyler was a seventh grade student. He loved to play soccer and used any free time on the schoolyard to kick the ball around with his friends. His willingness to participate in this study was surprising because most interviews and discussions were expected to take place during yard time (recess), a cherished after-school activity for Tyler. Prior to our interviews, Tyler shared that he does most of the language brokering in his family, usually for his mother. When I asked about his language brokering experiences and offered a few

examples of what language brokering health might include (interpreting for doctors' appointments, health forms, medication, etc.), he eagerly noted he language brokered for health "a lot." However, throughout our initial interview, Tyler struggled to share examples of his health-related language brokering. On multiple occasions, when I asked about language brokering for health, Tyler answered that he did not need to language broker for doctors because they spoke Spanish or for medicine because the information was printed in English and Spanish. During one interview, I asked Tyler how many times he had language brokered for health, and he estimated "20 times... maybe more because my little sister gets sick... around 25 (encounters)." Tyler's estimation of health language brokering encounters, roughly 25, since the age of six (the earliest health related language brokering encounter he could recall took place at six years old), suggests that during the past six years he had 25 encounters, possibly four encounters per year.

Tyler had few recollections of language brokering for things like medications, doctor appointments, or health forms, however, because of Tyler's confident deposition that he had indeed language brokered "a lot" for health, up to 25 times, I decided to continue exploring Tyler's experiences. The following subsections review Tyler's language brokering experiences and reveal that Tyler linked school behavior to health, challenging the boundaries of the health domain for this study.

A benefit of a semi-structured interview is the flexibility to return to interview questions at a later time or to explore topics by discussing tangential ideas. For example, Tyler and I discussed soccer, family activities, and school, and then returned to the main topic; this seemed to help him remember specific encounters. One such encounter he remembered was language brokering for a letter from the doctor's office, which arrived in the mail. "When we have an appointment, (the letter says) the day we usually have an appointment, whenever we have to be

there, and what it is for, like a shot. Sometimes (it says) what the shot is for...” Tyler has also language brokered letters concerning test results, “when I get my blood, my mom was asking what does it say, and I told her, how... it didn't really say nothing, just that, a letter of the doctor of how my blood pressure.” Another example of a letter Tyler has helped interpret for his mother is health insurance.

Tyler: When the little card comes, the medical thing, when they (parents) asked for it, it came (in the mail). She (mother) needed help signing some papers and I helped her and then I didn't get some parts either and then my dad helped. Most of the time me and my dad helps her.

Krissia: What did the paper ask for or say?

Tyler: It says (ask for) the name, birth, last name, the ZIP Code address, the state and female or male.

Krissia: Why do you think they ask you all those things for health insurance?

Tyler: To get all your information and to put it in the card.

Krissia: Tell me about it, the card...

Tyler: They ask for it for you when you go to the doctor. Where we go they (clinic) asked for a card because if you don't have it then they can't attend you.

Krissia: Why can they not attend you without a card?

Tyler: Because you have to wait until everyone that has an appointment because if you go randomly you might have to wait more...

In this study I found multiple study participants recounted language brokering letters for health insurance, appointments, or vaccine requirements for school enrollment. Similarly, Tyler described aiding his mother by explaining doctors' appointment logistics listed in the mailed

letters and the information needed to fill out health insurance forms. Tyler also described translating medication bottles, particularly for prescribed medications which his parents forgot about, and he explained that he and his parents used the Internet to search for information about the medications.

In addition to occasional health encounters for which he brokered language, Tyler discussed language brokering for issues related to schooling. The first health-related language brokering encounter Tyler recalled was for a school letter sent home, which he described as a “write up” for behavior.

“My school letter. I got a behavior letter. When I got hurt, like a behavior letter when I got hurt. But my dad didn’t understand nothing. I got hit with a ball and I fell... scraped my knee.”

Tyler also shared that he language brokered at school, once for other parents at a school event, and in another instance for his own parent-teacher conference.

Tyler: This time I had to translate for her because they told us what day we had to come to sign some things for school, I read that, and did that when we have a conference they gave us a sheet and tell us what day and like when we get a write up or a warning sheet.

Krissia: You translate the warning sheet?

Tyler: She told me what happened and I read it.

Krissia: What is that experience like for you?

Tyler It is weird because you were telling on yourself how you got in trouble and everything.

Krissia: Do you tell her everything?

Tyler: Sometimes I leave things out but then sometimes she finds out because of my dad.

In this interview excerpt Tyler describes two kinds of language brokering encounters: the first is helping his mother sign up for a parent-teacher conference, and the second is to language broker behavior notes and write ups. He explains that his mother asked him about his behavior write up, and describes this encounter as “telling on your self.” There have been several occasions at the afterschool program when I observed Tyler discussing his behavior with after-school staff, and sometimes his mother has also been present. These occasions stood out to me during the review of audio (from previous interviews) and led me to ask Tyler why he shared his parent-teacher encounter and his behavior write ups during our conversation about health, he responded:

“Because that all depends on my health. Because that's how I behave, and that is how my health is.”

Tyler’s candid answer was especially striking, because I understand Tyler’s statement to mean that for him, his health and behavior are linked, and his tone and matter-of-fact way of stating this gave me the impression that to him this link is obvious. The relationship between health and behavior is very important and has been a popular issue studied in the fields of public health and psychology. Some of the key issues related to health and behavior are explored in the following section.

Healthy Behaviors

To explore the relationship between health and behavior, I first draw from Bandura’s popular self-efficacy theory, which defines perceived self-efficacy as “people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives. Self-efficacy beliefs determine how people feel, think, motivate themselves and behave” (Bandura, 1994). In other words, part of self-efficacy is the belief that one’s behaviors can produce an intended outcome. Consequently, self-efficacy can be critical for

health as it plays an integral role in understanding how exercising certain behaviors can prevent illness or support good health, hence the now popular terms “risk behaviors” and “healthy behaviors.”

Research has consistently found a link between language brokering and self-efficacy, and suggests that interpersonal experiences with two languages and two cultures, such as frequent language brokering entails, may promote confidence and self-efficacy (Buriel, et al., 1998). In this study, Tyler’s experiences enhance the understanding of how language brokering, schooling, behavior, and health are interconnected by means of school or classroom behavior.

Tyler shared experiences and expressed insights that can be recognized as health literacy skills and ideas, for example, researching medication uses online with his parents or interpreting health insurance forms and test results. However, his encounters with brokering language for school behavior are also very much health encounters. Throughout my interviews with Tyler, a resurfacing theme was schooling, particularly language brokering for behavior and school information. Tyler’s language brokering experiences seemed to align more with the domain of schooling and education than the domain of health. For example, his experiences fit with previous language brokering research that explores children brokering language for schooling purposes, i.e. between teachers and students, teachers or school staff and parents. In their in-depth examination of four language brokers’ parent-teacher conferences, García-Sánchez and Orellana (2006) found that language brokers reduced teachers’ praise and amplified the language brokers’ own responsibility for any academic and behavioral shortcomings. The authors explain these conferences have an important role for the development of the moral and social identities of students. Unfortunately, without any data directly from Tyler’s parent-teacher conferences, it is not possible to inspect the role of these encounters for the purpose of his moral or social

identity development. However, what is extraordinary and relevant for this branch of research is Tyler's relation of school behavior to health, which possibly suggests that he finds health and behavior are equivalent or counterparts.

It is possible that Tyler struggled to recall language brokering events for "health," not because he did not have any such encounters, but because his view of a health domain was different than mine, and arguably more advanced. Public health has long acknowledged that behavior and health are interrelated (i.e. healthy behaviors, behavioral health, and behavioral risk factors), and in education, behavior and learning are interrelated issues. Tyler's response that his behavior is dependent on his health, and his behavior *is* his health, elucidates the critical and complicated relationship between education and health.

Research has substantiated that education is critical for health outcomes for various reasons (safer employment, greater resources, literacy and other skills necessary to manage health); however, a separate understudied issue exists. How does school/classroom behavior relate to healthy behaviors in general? The relationship between health and behavior has the potential to reshape how parent- teacher conferences are thought of and designed. For example, similar to Garcia-Sánchez and Orellana's (2006 and 2011) explorations of how parent-teacher conferences impact the moral and social identity development of students, we may consider how parent-teacher conferences are a part of a student's health more directly impact health outcomes in the short and long term.

Dee

Dee was in seventh grade during our interviews. From my observations Dee was equally dedicated to her studies as she was to the group of friends with whom she regularly did homework and spent time during recess and lunch. During our first interview she explained to

me that she brokered language primarily for her father because her mother is fluent in Spanish and English. Dee brokered language for various daily tasks, and in terms of health she language brokered at doctor appointments when her father had to take her or her siblings without their mother. Dee explained to me that this usually happened for appointments on Thursdays or Fridays--days her mother works. Additionally, Dee helped to translate at home for medical information, instructions, and, on a specific occasion, for her father's health insurance on the telephone.

Chapter 3, section seven, provides in depth background information on Dee and her family who are special for various reasons: Dee is a leukemia survivor, her family is heavily active with an organization that supports their home town in Mexico, and as this section examines, her family has two generations of language brokers. Dee's mother, Valerie, language brokered for her own parents (Dee's grandparents) and currently works as telephone interpreter. Initially, I sought to explore the contexts in which Dee brokered language health; however, after visiting her home and speaking with her parents, a rare opportunity surfaced to explore what a child language broker learns from an adult language broker. Coincidentally, Valerie's work as a telephone interpreter is a popular resource for doctors, health insurance companies, patients and clients, requiring her to language broker for health frequently. Valerie explained to me that she did not receive any formal training for health interpreting and is not a certified medical interpreter-- a certification required for interpreters employed by hospitals, clinics, and doctors who receive funding from the government.

In the following sections I review Dee's experiences language brokering for health, her father's experiences as the person who requires language brokering, and lastly, Valerie's experiences. I conclude by discussing how Dee and Valerie's language brokering experiences

overlap and how their family illustrates that language brokering requires active participation from all stakeholders -- an especially relevant aspect for understanding how health literacy and knowledge are learned and shared.

Dee's Language Brokering

Dee is the main child language broker for her father, although the family says that Abigail, Dee's younger sister, is eager to language broker and often jumps on any opportunity to do so. Dee regularly brokers language when her mom is not home; she mediates communication via mail, phone calls, and in-person interactions between her father and non-Spanish speaking individuals at stores. For health purposes, Dee notes that her mother works on Thursdays and Fridays, and her doctor's appointments are usually during summer and winter school breaks, and thus she translates for doctor's appointments made for Thursday or Friday during school breaks when her father is the only available parent.

During a recent school break (recent to interview date), Dee's father took her younger brother Sam to the doctor's for a physical exam. Dee and Abigail accompanied them, because it was a Thursday appointment, a day their mom is usually unavailable. The doctor for this appointment asked Dee's father if he would like a translator or wanted his daughter to translate, and Dee's father said it was fine for Dee to translate. Dee's father opted for Dee because they had commitments after the appointment and they could not wait for a translator. Dee recalled this day as being particularly busy, and translators being very busy. Dee said she interpreted "everything" for the entire appointment. Dee described the appointment to me:

It was not our regular doctor, because our regular doctor speaks Spanish. But I think she was out, because she was pregnant. My dad was the one with us, and the doctor didn't know Spanish. (I translated) how tall my brother is, since he was like chubby, how he has

to plan out his eating, but he didn't eat a lot, he just wouldn't do anything. So my dad would tell me things in Spanish, things like, that would help him, what we do at home, feed him like little portions, we won't feed him a lot, and we would go outside, and go play soccer with my dad.

I asked Dee what she thought about the appointment. Her response was generally positive:

I felt, like my parents were trying to help my brother. Sometimes, he doesn't want to do it, (parents tell him) but you have to do it, its for your own good. The doctor said to keep on doing it (encouraging son to eat healthy and exercise), and that if he is hungry in the morning or during midday, he can have a snack, like a yogurt. Don't give him like a big portion.

Dee remembered the primary content of her brother's doctor's appointment, and says that she took away the importance of balancing activity and diet. She also noted that the doctor was nice, because "she wouldn't be like, those doctors that just check you, she would be like 'how is school going?'"

When I asked Dee why she thinks her father elected her as the interpreter for this doctor's appointment, she says "because he (says) 'even though you guys live in America, you have to learn both languages. Like when you guys go over there (Mexico) you guys aren't just going to be talking (in) English.'"

Dee also helped broker language for health insurance. When I asked her about her experience with health insurance she began by sharing that her dad works for a soda company, delivering products to stores. Her father's employer provides her father's health insurance, and Dee explained to me that there was an occasion when "he was on the phone and there were no

Spanish translators, so I was helping him with the person who was talking. I think it was something about his health insurance that had expired.”

Dee described this encounter more generally:

They asked him a lot of questions, and I am like dad ‘te preguntan esto, esto y esto,’ (‘they are asking this, this, and this’) and he is like ‘qué?’ (‘what?’) And I would be repeating the stuff again and again. I kind of got frustrated because he wouldn't understand it... They asked how old are you, how long have you been working with the company.

Dee said this encounter was also “hard and tricky” because her father was asking for something--a product the insurance company did not offer. They offered him different options but her father insisted on another option they could not offer, causing him to get frustrated. In the end, Dee said that she was able to figure out what her father wanted (no co-pay), which she insisted she told him, although she thought that “he didn’t understand it correctly.” After this encounter Dee said she felt relieved.

I asked Dee what her father might say after a language-brokering encounter, and she said he generally asks her “si entendiste lo que dijo, o no mas estabas diciendo las palabras?” (Did you understand what was said, or were you just translating/saying the words?) He also comments on Dee’s language brokering, like “tienes que hablar más claro, porque luego me confundo” (“you have to speak more clearly, otherwise I will be confused”). Dee responds to her father’s comments with “okay, thanks for the feedback.”

Dee’s Father

During my home visit Dee’s father told me that there are a few things he considers when deciding to ask Dee to language broker for health. First, he asks before the appointment if Dee is

willing to interpret. Second, he said, if it is something simple (basic health information), it is okay for her to help, but if the content or health issue is more serious he asks for an interpreter.

When I asked Dee's father if he prefers Dee or a health interpreter, he said he prefers Dee:

Me sirve más ella... le sirve a ella, yo siempre pienso en ellos, no quiero que estén check accents cómo yo estoy ahorita, quiero que ellos abren la mente, tengan comunicación con la gente, sepan hablar. Eso es mi preocupación. Tengo más confianza con ella que un interpretador. (She is more helpful to me and it benefits her, I always think about them (Dee and siblings), I do not want them to be like I am right now, I want them to open their minds, to have communication with people, know how to speak. That is my concern. I have more confidence in her than an interpreter.)

When Dee and her father encountered language gaps--such as unfamiliar words (in English, Spanish, or medical terms), they implement different strategies. These strategies include scaffolding, being patient with one another by repeating words or finding alternative words, and from my observations, hand gestures. Dee and Her father described their trouble-shooting differently. Below are a few examples of how Dee and her father described experiencing language and knowledge gaps with each other.

Krissia: Do you translate at home for medicines?

Dee: For my dad I had to translate Tylenol... I read it first, then process it, and then shake it up. Then figure out how to tell him.

Krissia: What do you mean shake it up?

Dee: In my head the words.

Krissia: What do you think happens in your brain when you do that?

Dee: It's complicated (giggles).

Krissia: Do you use a phone or computer?

Dee: Yes, I will say, let me see the phone I need to look something up. Then I will use the dictionary.

From her father's perspective, when Dee becomes nervous or "atorada," this indicates to him he must take action.

"Pues allí estamos, luego tengo que pensar yo, reaccionar, más o menos, imaginar, ya le digo, o pedimos ayuda... o ya le digo en Español, en otra forma, para que ella entienda o yo puedo entender." (Well in that case I have to think, react with a clue, or imagine (what she is trying to say), or we ask for help, or I tell her in words in Spanish in other ways so she can understand.)

Dee also tries her best to offer different clues as to what she is trying to say; this happens when she knows the word in English but not in Spanish. For example at her sibling's physical check-up, Dee said, "I couldn't understand how to say it, and I had to describe it to my dad, with hand gestures and motions." Dee cannot recall the word but does recall it being related to something positive that the family did for her sibling's health. Another example is when she encounters medication names she cannot translate and then she relies on offering descriptions: "I'll try to describe it if I don't understand the word or know how to say it in English, it's like this or to this type of medicine it helps him this way."

Her father described the challenges Dee encounters as "se atora" which loosely translates to being clogged or jammed; in other words, the information she is listening to gets jammed and she has a hard time translating the information into Spanish. When this happens he tells her to keep going (interpreting), because one day this information and experience are going to help her more (than him in the future). Her parents also think Dee becomes nervous when she comes

across unfamiliar words. Dee's mother relates to Dee's experience of encountering unknown vocabulary, as telephone interpreter she says: "Yo también me pongo nervioso cuando se me va la onda (I too get nervous when I drop the ball), like ahhhh I get stuck, you know!"

Learning from Mom

Dee's mom is also a language broker. She language brokers for her parents (Dee's grandparents), her husband, and also as a telephone interpreter for clients. One of the things Dee's parents have noticed is that Dee adopted her mother's telephone interpreting when language brokering for her father. Dee agrees with her parents, that she tries to do the things she has seen her mother do or say on the phone.

Krissia: Y usted a ensañado a Dee diferente maneras to interperatar?

Mom: No not really.

Krissia: Have they seen you on the phone?

Mom: They've seen me. They know, when I tell them I am working, they know everything has to be silent... I need silence. If that door is locked, mom's on the phone, you better be quiet. Because one little noise, you lose it, you know. You lose concentration and then the Spanish-speaking person (makes fast talking motion with hand) gets very panicked... I try to start like showing them how to do addresses: You have to jot down, you don't put down the whole "street" you put St. or L.A. or if I know if they're in California, I don't put the whole thing.

Krissia: Do you ever try to imitate your mom?

Dee: Sometimes (if) it's like a doctor, for when I'm with my dad, I try doing the same thing she does. like I talk to my dad, I know what she does like: OK this is how he asked what he needs to do, or I ask the exact same questions or try to repeat the exact same

things that the doctor said to him that way he can understand it. Or sometimes if the person doesn't understand I try describing it to him.

Krissia: And you've seen your mom do this?

Dee: Nods in agreement.

Some of Valerie's language brokering experiences as a telephone interpreter are similar to Dee's experiences as a child language broker; for example, they each broker language for a parent (Valerie for her parents, and Dee for her father), Dee's father, and doctors. Dee draws on her observations of her mother interpreting for doctors on the phone when she language brokers for her father. They both also encounter unknown words, and her mother can relate to Dee's nervousness when she gets "stuck" on a word. They both also rely on contextual clues to help others make sense of what is being communicated. Although there are many similarities, there are also plenty of differences. The most obvious is that Dee is a child and her mother is an adult; Dee's mother is paid for her services, has a considerable amount of experience, and language brokers for strangers. As a language broker for her own family and as a health interpreter herself, this also means that she has valuable insights into both sides of the coin.

I tell them (family), they don't pay me well, but it's flexible, I do it whenever I want.

They pay me 25 cents a minute. This is a good job for you in the future... you should begin to learn now. It is a good job for someone in school, you won't earn a lot but it will help with gas or food...

Dee's mother also tells me that she was not formally trained to be a health interpreter, and that she thinks only in-person interpreters need to be certified. She says she is not interested in being certified because she enjoys the flexibility of working from home, an advantage of the work. Valerie stresses to Dee during my interview with them, that interpreting over the phone

might be a good income source for her (Dee) when she is in college. I ask Dee if she would like to do the work her mother does, but she nods indicating no.

Dee's mother recognized that interpreting for health can be difficult and challenging. Something she did not mention, although Dee had, are the repercussions of interpreting health information incorrectly. During a separate interview, I asked Dee to read a fictional story I wrote about a girl named Emma who translated for her father. Emma's father mostly spoke and understood Japanese. The story focused on Emma language brokering for a doctor's appointment and having to tell her father that the doctor said he had high blood pressure and must take medicine. When I then asked Dee if she had ever felt afraid of translating anything a doctor said, she answered the question generally, and related it to Emma's experience.

Only when it's like something bad. Like when they say, your high blood pressure is bad and you have to drink a lot of medicine sometimes they say like medicines like weird names of the medicines in English and I don't know how to say it, uhh how do you say this? ...I feel nervous because I'm scared that I might see the medicine wrong and if that happens with my dad he will get the wrong medicine that he doesn't need.

Tylenol may not be one of the "weird medicine names" that Dee language brokers, but one of the last things I asked Dee to do during my visit with her family, was to language broker directions for a medicine they use at home.

Krissia: Ay que decir que su esposa tiene un dolor de cabeza. Dee can you explain to your dad if this medicine (family's Tylenol) will help your mom?

Dee: Esto te va ayudar para calenturas, o si tienes tos, o duele tu cabeza

Dad: (giggles)

Mom: (to dad) Ask her...

Dad: Yo quiero saber si no te da sueño si lo tomas, que reacción te da, cuantos voy a tomar... cada cuanto tengo que tomar cuantas pastillas? (I want to know if this will make you sleepy, what reaction does it cause, how many will I take, how often do I need to take how many pills?)

Dee (looks at bottle): I don't know

Krissia: Take your time...

Dee: lo que te va dar, te vas hinchar un poquito, y si estás embarazada no lo puedes tomar. (giggles) (What it will give you, you will get swollen, and if you are pregnant you cannot take the pills.)

Krissia: ¿Y cómo cuántas? (And how many?)

Dee: Dos cada seis horas (two every six hours).

Mom/dad: ¿cuántos días tengo tomarlo? (How many days do I need to take the pills?)

Dee: Hasta cuando te quite el dolor...lo que tienes (Until your pain is gone, or whatever you are taking the pills for is gone.

Dad: ¿Así dice en la descripción? Porque tienes que leer todo la inscripción primero. (Is that what the descriptions says? Because you have to read it all of the inscription/directions first.)

Dee: No use más de diez días. (Do not use more than ten days).

I asked Dee's dad if this example is similar to their experiences language brokering (without me present), and he said that it is and reveals that he was diagnosed with high blood pressure and asked Dee to language broker medicine instructions. He also adds that when he loses confidence that Dee is able to interpret the information accurately, he will stop her, tell her to read carefully, or sometimes waits for his wife to come home.

Developing Health Literacy through Language Brokering

Health is understandably very important to all families; for Dee's family it is especially important due to her battle with leukemia. Her mother described long days at hospitals, filled with waiting and medical tests. Her father mentioned counting on his luck that nurses for blood work would speak Spanish when he was the only one able to take Dee. And Dee's eyes filled with tears when she recalled this time in her young life. Dee's parents emphasized their healthy eating habits: her father mentioned the last time they ate fast food was six months ago (from the time of our interview) and her mother described the children's surprised facial expressions on the very rare occasions they get to drink a sugary soda, which they have to share between the three of them. It is evident that Dee's parents are very attentive and explain the purpose of nearly everything they task their children to do. Dee's responses from our initial interview also matched her parents' reasoning as to why they encourage their children to language broker-- in order keep up with two languages and stay up to date with their cultural roots and traditions.

Dee's family resembles what communication researchers identify as having a consensual family pattern, in which parents balance encouraging their children to participate in family matters but maintain decision making power. Koerner and Fitzpatrick (2006) describe consensual families as "listening to their children and by spending time and energy in explaining their decisions to their children in the hope that their children will understand the reasoning, beliefs, and values behind the parents' decisions" (p. 87). Dee's parents reiterated in our interview that when it comes to language brokering, they explain to their children that practicing both languages and asking questions is for their own good and that one day it will be to their benefit to have this skill. Similarly, when it comes to health, they make sure to consistently uphold certain practices and discuss health matters.

Dee's experiences illuminate more keenly certain issues relevant for this study and in general for language-brokering literature. The first such issue is the growth--in terms of population and age-- of second-generation language brokers. The number of second-generation language brokers, like Dee, Tyler, and Jennifer (participants in this study) who each have one parent who is bilingual and brokered language for their own parents and family, complicate assumptions that language brokers are all first-generation immigrant children. What does this shift in population mean for the future of language-brokering studies? For institutions like health, a wave of second-generation language brokers might mean that language brokers become even more numerous and accessible (if a child and parent can both language broker for another family member). Dee's experience reveals that language brokering may become a skill that is refined with the help of parents, in the same way that acquiring a second language, playing an instrument, or cooking might be considered skills that are passed on. Second, for the domain of health it means that even when health-interpreting is not placed on a child, the gaps in services still rely on language brokers such as Dee's mother Valerie. Lastly, and most pertinent to this study, having multiple generations of language brokering in one family might make language brokering health more intellectually rigorous. Valerie and her husband were not poised to make language brokering easier for Dee. Dee's father might have easily waited or called his wife for help with his insurance company or his medicines, but instead he tasked Dee, and then followed up with his wife to confirm information. Valerie, likewise, did not take over language brokering for Dee when she struggled to read the Tylenol bottle instructions; instead she asked more questions to probe for information. Dee's family represents the immediate and future make-up of language brokering families, and gives the prospect that language brokering may become a

learning tool for developing health literacy, and a meaningful skill for living in a transnational and multicultural society.

Conclusion

Jessie, Tyler, and Dee's experiences language brokering for health were unique for multiple reasons, among them, the uniqueness in nature of each participants' encounters, which sheds light on the unexpected ways children encounter and language broker for health. Jessie's health encounters, examined in this chapter, were focused on Jessie's language brokering for Healthy Way products. Jessie's experience as a language broker for products is distinct from the other participants in this study, and, in general, unique within language-brokering research and literature. Her experiences bring to light a true yet less discussed issue: health as a business.

Unlike Jessie, Tyler's experiences language brokering health were less apparent in their connection to health. In this chapter, I focused on Tyler's thoughts about and experience with language brokering for parent - teacher communication in conferences and for letters. The content was not necessarily linked to Tyler's physical health, rather it focused on his behavior, which, Tyler explained, strongly connected to his health. His experiences raise questions about how health literacy frameworks might include behavioral health, such as how classroom and schooling are linked to health behavior modification, healthy behaviors, and risky behaviors.

Finally, Dee's experience as a second-generation language broker with a parent who brokered language for her own parents and professionally over the phone for health providers and patients, directed attention towards the future of language-brokering research. Having a parent language broker mitigated the pressure on Dee of language brokering on her own and also created the opportunity for more exposure to language-brokering strategies, scaffolding, and coaching. Dee shared that she learned about language brokering from her mother and recalled

how her mother language brokered over the phone with doctors. This fits with her parents' hopes that language brokering will expose their children to more knowledge or, as her father said, "open their minds." Dee's family described language brokering as a valuable skill; Dee's mother said that having the skill to interpret (over the phone) might not be a great paying job but it might help her children one day to supplement their income when they are in college and allow them to pay for books or gas. In terms of health literacy, language brokering exposed Dee to health issues and institutional processes, exposures that she might draw from to help others (just as she did when she applied her mother's language-brokering techniques during her father's appointments.

Nutbeam (2000) argues that there is need for a broader definition of health literacy and encourages a definition that encompasses the deeper meaning and purpose of literacy for people. Jessie, Tyler, and Dee offer perspectives on a deeper meaning and purpose of health literacy: health literacy certainly refers to the ability of a person being able to obtain, process, and understand health information, as the U.S. Center for Disease Control's popular definition posits, but should also refer to the capacity to make health care, information, products, and related determinants, such as education, accessible.

CHAPTER SIX: SHIFTING

A key research aim for this study is to explore possible learning opportunities embedded in brokering language for health purposes. This chapter explores these opportunities by specifically considering how the dynamic social interactions and relationships embedded in health-related language brokering might support learning and the co-construction of knowledge. To do this exploration, I draw on Vygotsky's zone of proximal development concept and the concept of language-brokering performance teams by Valdés et al., (2003), and draw from the idea of shifting by Eksner and Orellana (2012). Shifting in this chapter refers to the fluidity and dynamism involved in language brokering, such as the shifting of roles, languages, and cultures that occurs in language brokering for health.

The first subsection in this chapter briefly reviews each of the three aforementioned concepts, which are woven throughout this chapter. The second subsection analyzes an example of a language-brokering team encounter that illustrates the back and forth nature of more conventional language-brokering activities. The back and forth shifting refers to the fashion in which language brokers translate or interpret a dialogue between two people. The subsection links this kind of back and forth encounter to the concept of the ZPD to highlight the intricate operations that occur within a seemingly ordinary exchange. The third subsection explores the shifting of roles within teams, and highlights how this shifting is complicated within the health domain, particularly with the presence health-care professionals and parent who is also a language broker. The chapter concludes by reviewing the shifting of language in unexpected ways. In sum, this chapter aims to disrupt how language-brokering tasks and collaboration are perceived by weaving together different concepts and research.

Overview of Concepts

Zone of Proximal Development: The zone of proximal development (ZPD) is described by Lev Vygotsky (1978) as “the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (p. 86). In other words, the ZPD represents an early phase in familiarity with a skill, task, or knowledge, which can be developed through collaboration or cooperation with a more advanced or capable individual. Säljö (2010) interprets the ZPD to imply that children or novices can learn or advance more when they work with a more capable expert peer. The idea of the ZPD embodies the essence of sociocultural learning theory: learning and development is socially supported through interactions with others. Previous language brokering researchers have used sociocultural learning theory and the concept of the ZPD to analytically make sense of language brokering (Tse, 1995; Orellana, 2009; Eskner and Orellana, 2012).

Performance Team: Valdés et. al. (2003) uses the term *performance team* (adopted from Goffman, 1959) to describe how language brokers and their family members manage how others perceive them. In Valdés’ own words:

The goal of the routine performed by an adult and a child interpreter is to present the impression of the parent that will be most effective in a given context and that will evoke positive responses from majority individuals. The child is actively engaged in using two languages to manage the impression, and at times may seem actually to be in charge of the interaction. It is clear from the information we obtained from our interviews, however, that it is, in fact, the parent who is truly in charge (Valdés, 2003, p. 96).

Managing impressions, not necessarily to misrepresent impression, but to cultivate understanding

of what it is being communicated, is yet another perspective of what language brokering work entails. And as Valdés notes, managing impressions, and learning how to present oneself and others in a new culture is especially challenging. The *performance* in performance team refers to impression management, and the *team* refers to the participants in a language brokering encounter. Goffman's term, director, identifies the person in charge of the performance, or, in other words, the person directing other team members (1959). For language brokering, Valdés assigns the role of director to the parent, and the language broker is a team member. I posit that, perhaps in certain medical interactions, it might be possible for a medical expert to be considered the director, because they are guiding the encounter. However, do medical experts direct the language broker's management of impression? Valdés argues that language brokers are aligned with the parent and are never impartial, which sheds light on another issue. Who do language brokers work for? Who has authority in a language-brokering health encounter? I explore these issues in this chapter by considering the shifting of roles (subsection two).

Shifting: *Shifting* in this chapter refers to the shifting of roles, knowledge, culture, and language. My use of shifting builds on Eskner and Orellana's (2012) idea that language brokers can occupy shifting positions of authority and power. Eskner and Orellana define language brokering as "socially situated learning tasks that take place in dynamic zones of proximal development in which knowledge and authority are dynamically reassigned among participants" (p. 196). In suggesting that knowledge and authority can be reassigned within a ZPD, Eskner and Orellana challenge the traditional notion that age dictates ability and authority. Additionally, the idea that knowledge and authority can be reassigned or shifted conflicts with Valdés' suggestion that the parent maintains a director's role, and the language broker is always partial to the director. Albeit Goffman's director's role was not constituted as part of the ZPD concept, it is worthwhile to

consider how shifting authority and knowledge may shift roles and partiality. This chapter explores examples of shifting participants shared in their accounts of language brokering for health. One such example is in a language broker's brief account of a health appointment; they reveal that they shifted between roles the roles of language broker, patient, and daughter. For language brokering teams, shifting is critical, and requires flexibility, quick thinking, and empathy. The encounters reviewed in this chapter illustrate different forms of shifting and exemplify how health-related language brokering events are socially situated learning tasks.

Brokering back and forth, and Shifting between language broker and patient

A language brokering team is typically made up of a child language broker, a familial team member (usually parent), and a non-familial team member (teacher, store worker, doctor, etc.). A typical language brokering encounter is described as a back and forth dialogue. Berto's description of a clinic visit illustrates this kind of interaction:

The latest, I can remember, is when I went to a clinic, and they started checking my vacunas (vaccines), shots, they checked how I was going, how I was, what was happening, all that stuff... so, then I had to translate a little bit for my mom because it was this white woman as the doctor, and she (mom) knows only a little bit of English.

My mom understood, but trying to say it back is kind of difficult for her.

In this quotation, Berto describes the setting, general content, and language brokering team. Berto says he went to a clinic (setting), where they checked his vaccines and "how I was going," in reference to his general health (content of appointment). He describes the language brokering team: "white woman" as the doctor, his mother who "knows only a little bit of English," and himself as the language broker: "I had to translate a little bit for my mom." Berto's use of "white

woman” to describe the doctor is a small but important detail. As described in methods, the community in which study participants reside is predominantly African-American and Latino; therefore, interactions with Caucasian people become memorable, as there are fewer of them. In this instance, Berto’s description of the doctor being white possibly insinuates that this might be the reason the doctor does not know Spanish, but it may also be background information because I asked him to share with me what he remembered. In our interview I asked Berto to walk me through his visit beginning with the lobby, which he does below:

I wait for a little bit, after they call my name, the doctor comes out, starts saying my mom’s name. She talks to her, she (mom) said ‘I only speak a little bit of English’, she (doctor) said ‘ok’, so we went to the room. She (doctor) started saying, I need this and that... how many shots I missed, she kept saying you’ve missed three [to] four shots, since you were seven years old, you have to take them now or you may not enter 7th grade. Then she (mom) told me, ‘tell her (doctor), that I forgot the little slip that records all the shots since you were a little kid, then I told her (doctor). She (doctor) said ‘okay ma’am, all you have to tell me, is how many, and what you need to take, and what you need to take right now.’

Berto describes the first exchange between his mother and the doctor, and then the back-and-forth brokering he does once inside the examination room. Berto uses the phrases “she told me, to tell” and “then I told her” to situate himself in between the doctor and his mother. He shifts in language when quoting them: note the formal language “ma’am,” and “you may not” from the doctor, and the less formal language such as “little slip” and “little kid” from mom.

In this final quotation, Berto shares his patient experience by describing how he felt about getting a vaccine. He shifts from language broker to child, and says his mother helped him overcome his fear of needles with a “trick.”

[I felt] a bit nervous, since I hadn't taken shots since I was seven of course. If you knew me, I was the kid that needed 4 doctors to hold me to give me a shot... but then my mom said to me here's a trick, think about anything else but the shot, and nothing will happen. I did exactly that, I didn't look at it, I looked at the boxes they had, they had a Disney box with masks for kids. Then I started thinking about Disneyland and all that, they put me the shot. I didn't feel anything, like a tiny flick. Since they gave three (shots), two (shots) of the ones you won't feel. There is this one shot, with white liquid, it didn't hurt, the impact didn't hurt, but afterwards... I think it was the T-Dap, the one I needed to come to 7th grade, or one of the ones I missed.

Berto's experience of brokering language for his mother and doctor in this encounter means he had to shift between languages and broker back and forth between the women. In his recollection, he says that his mother instructed him to broker language-- “she told me, tell her,”-- but does not mention whether the doctor also instructed him to broker before she spoke or if he did so automatically. In health encounters in which the language broker is not the patient, they might shift their attention between being a language broker, daughter, sibling, friend, etc. In this encounter, Berto is the patient, and what the doctor and his mother discuss is directly related to him; thus, he shifts back and forth between the roles of language broker and patient. Shifting between language broker and patient is very unique, when we consider that usually a patient who does not need language assistance is presumably able to speak and make decisions for themselves. However, when children are patients, parents play a special role in mediating

medical appointments. It may be possible that brokering language for his own appointment positions Berto to be more engaged in his health care than a child who does not need to broker language.

Another example of a back-and-forth interaction is visible in Lacey's experience helping her mother fill out paperwork at the dentist's office:

Last time we went to the dentist they give her a form it was only in English. In one sentence it said that if my teeth hurt when I eat something hot or cold, and that's when I told my mom what it said, and then she said... if when I eat it hurts if I eat cold or hot, and then there's something... cold or hot, and my mom has to circle it. Then there was if I eat sour if hurts... I mostly read the thing and tell her in Spanish and then she would answer in the thing, circle yes or no.

In this quotation Lacey describes a form she helped her mother fill in at the dentist's office for her (Lacey's) appointment. Lacey describes the form, which I envision to be in a survey format, with questions followed by long ellipses and then multiple choices. She remembers that the form asked if she experienced pain when eating something hot, cold, or sour. She sums the experience up as "I mostly read the thing and tell her in Spanish..." However, Lacey's description alludes to a multistep process: first, she read the form; second, she brokered language to communicate the information to her mother; third, her mother asked Lacey if she felt any pain when eating whatever the questions asked; and, last, her mother fills out the form. Previous language-brokering studies have illuminated the complexities of parents and child language brokers filling out forms together. Orellana et. al, (2012) examine a video of language broker Vin Vin filling out a health form with his father. The authors' analysis of Vin Vin's experience brokering language for a health form with his father illuminates the idea that the two pooled together their

linguistic resources and knowledge, and also interchanged their positions of novice and expert (p. 381). Building on this work, I also recognize Lacey and her mother pooling together language and knowledge, as well as interchanging roles. They fill the form out together and create a systemic process in which Lacey brokered language for the form while her mother asked her the questions brokered. Then, Lacey answered, and her mother “asserted the power of the pen,” as put by Orellana et al. (2012, p. 381).

The interaction of shifting back and forth in language-brokering activities is seemingly straightforward: language brokers mediate between two people or between a person and print to achieve communication and complete a goal. These “back-and-forth” activities become more complex when we consider the roles of each participant or team member. In these two examples, Berto and Lacey shift back and forth between the roles of language broker and patient. More difficult to discern are the roles of expert and novice in each encounter. Berto’s vaccination appointment included himself, his mother, and a health practitioner. Each team member had expertise. Berto was more expert in two languages, Berto’s mother had expertise regarding her son’s health history and on coping skills for receiving painful vaccine injections, and the doctor had expertise in administering vaccines and medicine. Berto’s language brokering team pools together linguistic, medical, and health knowledge to achieve the goal of getting Berto the necessary health care to be eligible for school enrollment. In contrast, Lacey’s language brokering team is made up of herself and her mother, and their health encounter was centered on interacting with a printed text. Lacey and her mother enact literacy skills needed to read and fill out the form, and Lacey draws on her bilingual expertise while and her mother draws on her own experiential knowledge of filling out health forms. Lacey’s mother also takes charge of scaffolding interview questions and physically filling out the medical form, and this decision,

while small, may insinuate something about the authority or roles Lacey's mother hopes to maintain within their language-brokering team. The shifting of roles and authority within language-brokering teams is explored further in the following section.

Shifting team roles and authority

Lacey: There was a lady (nurse or doctor) that she was going to check if we had diabetes, and that's when I told my mom, and my mom, she said it was okay.

Krissia: When you go to the doctor and they ask for permission, you ask your mom (for permission)?

Lacey: Yes.

Krissia: Do they ever ask you to make the decision?

Lacey: No... well sometimes they do ask if I want to, and that is when always I ask my mom.

Krissia: Why do you always ask your mom?

Lacey: Because sometimes I still don't know what they are trying to do that's why I ask my mom...

In this excerpt I asked Lacey to tell me about a time she brokered language at a doctor's appointment. She described an appointment for a health check-up that included a diabetes test. Lacey refers to her language brokering as "and that's when I told my mom, and my mom, she said it was okay." This encounter stood out because Lacey shifts between three roles: language broker, patient, and daughter. This encounter also made me curious as to whether Lacey had been instructed by the nurse or doctor to ask her mother for permission to test for diabetes, or whether that was a decision Lacey made on her own. It is not clear whether she was prompted to ask her mother on this particular occasion; however, on other occasions Lacey had been asked to

make health decisions. Lacey emphasized that, when she is asked to make a decision, she makes sure to ask her mother, because as she says “sometimes I still don’t know what they are trying to do, that’s why I ask my mom.” Lacey’s use of the word “still” is very important to consider for this study, as it likely indicates that, although Lacey understands the words or language enough to interpret, it does not equate to her knowing what “they are trying to do” (they refers to health providers).

One of the concerns doctors share about children brokering language for adults is the prospect of children being asked to make medical decisions. Lacey’s experience gives some insight on how this might occur during an appointment; her experience also highlights another aspect of this issue, that Lacey *always* asks her mother. In always asking her mother to make a decision, Lacey is able to influence the balance of authority within her language brokering team. Unexpectedly, trained medical interpreters may face greater challenges in maintaining a power balance in their work brokering language for patients and doctors. Davidson (2002) stresses that medical interpreters are trained and employed by the health-care institution, and, while they are tasked with interpreting health information neutrally, they are “acting, at least in part, as informational gatekeepers who keep the interview ‘on track’ and the physician on schedule” (p. 400). Therefore, medical interpreters’ choice of words and what they choose to interpret might be more influenced by time concerns, rather than safeguarding a patient’s interest.

A unique kind of shifting which I unexpectedly encountered in this study was the shifting between two language brokers in one family, made even more distinct because the language brokers were mother and daughter, and the mother worked as telephone interpreter. Little research and literature explore the dynamics of having more than one language broker present in encounters. Some studies have found it common that multiple siblings share language-brokering

duties; however, we know less about situations in which a child and parent share the responsibility. The excerpt below offers a glimpse into what these encounters might entail.

During my visit to Dee's home, I was able to speak with her and her parents about their family life, history, and experiences with health care. One of the last things I asked Dee to do during my visit with her family was to broker language for the directions for a medicine they use at home.

Krissia: Ay que decir que su esposa tiene un dolor de cabeza, (Let's say, your wife has a headache,) Dee can you explain to your dad if this medicine (family's Tylenol) will help your mom?

Dee: Esto te va ayudar para calenturas, o si tienes toz, o duele tu cabeza (This will help with fevers, cough, or if your head hurts)

Dad: (laughs)

Mom: (To dad) Ask her...

Dad: Yo quiero saber si no te da sueño si lo tomas, que reacción te da, cuantos voy a tomar... cada cuanto tengo que tomar cuantas pastillas? (I would like to know if it will make you sleepy, what kind of reaction it will cause you to have, how many I have to take, and every how often do I have to take how many pills?)

Dee (looks at bottle): I don't know.

Krissia: Take your time...

Dee: lo que te va dar, te vas inchar un poquito, y si estas embarazada no lo puedes tomar (giggles) (What it will give you, you may swell a little, and if you are pregnant you cannot take it.)

Krissia: Y como cuantas... (and how many?)

Dee: Dos cada seis horas (two, every six hours)

Mom/dad: Cuantos dias tengo tomarlo? (how many days do I have to take it?)

Dee: Hasta cuando te quite el dolor...lo que tienes (Until your pain is gone, or whatever you have.)

Dad: Haci dice en la descripcion? Porque tienes que leer todo la inscripcion primero. (Is that what the instructions say, because you have to read the entire instructions first.)

Dee: No use mas de 10 dias. (Do not use more than 10 days.)

In this interaction adults outnumber Dee; the language brokering team consists of two parents, an interjecting interviewer (myself), and two language brokers (Dee and her mother). Based on my conversations with Dee and her parents, the interaction does represent their language brokering team practices. Dee's father comfortably scaffolds Dee's language brokering by asking her specific questions, instructing her to re-read something or to ask something more specifically to the non-familial language brokering team member. I ask Dee's dad if this language brokering interaction is typical of their experiences, and he says that it is, and he reveals that he was recently diagnosed with high blood pressure. After his doctor's appointment, he came home and asked Dee to interpret the doctor's instructions and medication. He added that when he loses confidence that Dee is able to interpret the information accurately, he will halt her, tell her to read carefully, or sometimes wait for his wife to come home for help. For his high blood pressure medication, he did both: he asked Dee and later confirmed the information with his wife.

Another way shifting occurred within Dee's language brokering team was evident in the excerpt above when Dee's mother instructed her father in English to ask Dee about the instructions. Dee's response was also in English, "I don't know." The family freely shifts between English and Spanish. Dee's father understands some English, and the code switching or

interchanging of language occurred not only in the middle of conversation but even mid-sentences at times.

Similar to Dee's family, Tyler also has one parent who is more proficient in English and able to take on the language-brokering role.

Tyler: When the little card comes, the medical thing, when they (parents) asked for it, it came (in mail). She (mother) needed help signing some papers and I helped her and then I didn't get some parts either and then my dad helped. Most of the time me and my dad helps her.

Krissia: What did the paper ask for or say?

Tyler: It says (asked for) the name, birth, last name, the ZIP Code address, the state and female or male.

Having a parent broker language makes assigning team roles more complicated. Is the team director the parent who can broker language? Is the director the parent who needs language brokering and will direct his language brokers on what they need to communicate? Does it matter who among the language brokers is more expert and in language or content? Possibly, there are multiple team directors or no team directors. The triad--child language broker, parent language broker, and parent--emphasizes Eskner and Orellana's (2012) point that zones of proximal development do not "consist of statically defined participants, roles, and domains of knowledge, but is dynamically adjusted during the interaction over the task" (p. 201). Different roles do exist in language-brokering teams, and, as made evident in the examples in this chapter, roles are not stationary. Brokering language for health information complicates the idea of shifting roles further because sometimes it may not necessarily be that roles are shifting, but that team members play simultaneous roles, and, therefore, their interests shift. Another way of

thinking about this is, the child language-broker role is not placed on the parent language broker when they go to a doctor's appointment; instead they are both language brokers for the parent with limited English, and at the same time the child language broker is also a patient, and the parent language broker is still a parent and guardian.

Vygotsky's sociocultural learning theory postulates that a novice benefits from the expert, but the triads of a child language broker, a parent language broker, and a monolingual parent obfuscate who is the novice and who is the expert, and in what sense and to what degree. For example, Dee's mother is a telephone interpreter who commonly interprets for health providers and patients, thus having wider health knowledge to draw from and more experience with medical language understanding, which she mentioned to me she has modeled for Dee. Dee notes that she emulates her mother when brokering language, but her father remains in command of language-brokering events by directing Dee and scaffolding, as depicted in the quotation earlier.

In contrast, Tyler, whose bilingual parent is not a professional interpreter or worker in a health related field, has the benefit of having a bilingual parent who offsets the pressure on him and on his mother who can count on Tyler's father to complete any missing details. Such was the case with the medical card ID and for Tyler's behavioral notes from school (explored in chapter 5 of this dissertation). Dee and Tyler's language-brokering teams illustrate the fluidity of roles, knowledge, and skills, as they shared in making sense of health information and this shifting of roles may differ from the popular conception of language brokering.

Offering a different perspective, a third study participant, Jennifer, also has a bilingual mother who can broker language for Jennifer's father. Jennifer shares a unique aspect of being part of a language brokering team with a parent language broker: sometimes they need help too.

Sometimes I have to help her remembering things, sometimes for translating. Over the summer she (mom) forgot..., she was on the phone, because something happened, she (mom) told me to take over (phone call). She told me what happened... I was just telling him (doctor), because my dad has a piece of metal stuck in his eye, so he was just asking me what happened. He (dad) had got into a car accident with my grandpa he got a piece of metal stuck in his eye I think, it was like a bunch of stuff I think, because his head had started to hurt, a lot of stuff happened during that time. ...[Interpreting on phone] it wasn't that different, because it's like talking to them in person... [when I didn't know a word] I would just describe it in English and then my dad would catch on to it.

Dee and Tyler described their bilingual parents as resources to supplement their language brokering, but, in the quotation above, Jennifer describes a contrasting experience in which she supplemented her mother's language brokering. Jennifer's account also hints that her mother might have become frustrated with trying to broker language between her father and the doctor, and Jennifer was better able to describe things in order to help her father understand what the doctor wanted to know.

Shifting language in unexpected ways

During our first interview Elle described a doctor's visit. She said the doctor is at a clinic in downtown Los Angeles and that he has treated all of her siblings since childhood. She described the appointment process as follows: first, her mother fills out paperwork to list allergies and gives their "health ID" information; then, before Elle can meet with the doctor, the nurse meets with her and asks questions, like how much juice and milk she drinks; and, finally, the doctor checks her body, eyes, and ears. Elle described the doctor as a good doctor; when I asked what makes him a good doctor, she says it "just feels like he is a good doctor." She said her doctor

speaks Spanish but sometimes does not know certain words, and, when this is the case, he has asked for Elle's help. Elle recalls one such time:

Elle: He (doctor) doesn't know how to speak that much Spanish. He told me to explain it to my mom, the word, what it means. I didn't know how to say it in Spanish, but she understands me when I say it in English sometimes.

Krissia: Your mom understands you in English?

Elle: Yes, like when I say a month, and I don't know how to say it, she says it for me. She kind of helps me too.

Krissia: Do you remember what the word meant?

Elle: No.

Krissia: How do you feel when translating?

Elle: I feel good because my mom understands me, even though I don't know how to say it, (or) explain it to her.

Krissia: How do you think the doctor feels about you translating?

Elle: I think he feels good, because he knows I speak Spanish and English, and that's why he asks me (for help).

The experience Elle describes above sheds light on a unique language brokering strategy. Elle cannot recall the word she needs to help the doctor communicate; yet, she explained to me, that her mother understood her when she repeated the word in English. Is it possible that Elle was able to annunciate it in a way that made the word more familiar to her mother? Or is possible that her mother did not understand the word, but implied she understood in order to move the appointment along or to prompt Elle to describe the word? I asked Elle's mother about this, and she agreed that at times Elle does not actually translate words but instead repeats words in

English, which she is, then, able to understand. It may be the case that dialect plays a role in her mother's understanding; for example, the doctor may speak English differently or too quickly. It is also possible that Elle interprets what is said before and after the unknown word, offering sufficient contextual clues for her mother to understand. Although it is difficult to know for sure what and how Elle's mother understood Elle, this example calls attention to possible language brokering and communication strategies that have yet to be studied.

Shifting between Spanish and English is difficult. Most study participants share that they felt challenged when trying to think of a word in Spanish. For some participants, unfamiliar Spanish words stand out in their memories, more so than unfamiliar English words. For example, when I asked Tyler whether he had encountered unfamiliar new words, he said he has and shared an incident when he was not able to say a word in Spanish, the name of a medicine to treat a fever, "instead of me trying to help her (mom) say something in English, she was trying to help me say something in Spanish." This happened when he was translating for her. There have been times when Tyler has not understood doctors because the doctor spoke Spanish to his parents, and, in these cases, his parents need to clarify or broker language for Tyler.

A final example of shifting language is Jessie's use of terms in her language-brokering encounters for the *Healthy Way supplements her mother sells. Throughout our interviews, Jessie used words such as products, sickness, testimonials, and cells. These terms seem more aligned with the culture and vocabulary used by the *Healthy Way company, and less aligned with how people might discuss supplements and health in everyday terms. Throughout the entirety of our interviews, including my interview with Jessie's mother, Jessie and her mother refer to Healthy Way supplements as "products." Jessie also describes "testimonios," which I understood as testaments or proof that the supplements are effective. A more natural way to

discuss Healthy Way products might be to say “Healthy Way supplements have been proven to help with illnesses such as...” However, there is no evidence, at least no official scientific evidence, that Healthy Way products are effective and do what they are advertised to do, for this reason, testimonials help the company promote the products. And for this reason, the language Jessie and her mother use to discuss Healthy Way products is careful and calculated to inform customers that it is by word of mouth that they know these products work and that the supplements are products, not medicines or dietary treatments. Other words Jessie uses to describe Healthy Way products and the health issues the products help with include radicals, bacteria, cells (which the products help support), safe, minerals, and all natural. The terms are scientific, but not specific to which kind of bacteria, what kind of radical, or which illnesses the products improve. Similarly, the Healthy Way website uses language such as amino acids, “higher levels of nutrients,” antioxidants, and energy boosting, terms that are vague but still scientific.

The language Jessie uses when brokering language for Healthy Way products is important because it highlights a very important issue in health literacy: commercialism. Health care is a business, and Healthy Way is one sliver of the many services and products sold to consumers to manage their health. Jessie’s experience is a major exposure to this market, and whether Jessie or mother realize it, she is exposed to how the health industry functions. Last, Jessie’s experience illustrates how language shifting does not always have to be between two languages such as Spanish and English, but also shifting between lay terms and medical terms, or legal language and everyday language.

Concluding thoughts

This chapter is centered on the idea that shifting and the fluidity of language, team roles, and authority are essential characteristics of language brokering and become more complex for language brokering that occurs in relation to health. The first section of the chapter aims to break down the elements of more conventional language brokering arrangements and reveal that “back-and-forth” interactions are not necessarily easier, but can help maintain an order in how language brokers operate. The elements of a back-and-forth interaction offer learning opportunities for multiple team members, such as the case of Lacey and her mother when they worked together to fill out a health questionnaire.

Another element explored in this chapter is the dynamic shifting that occurs when medical professionals and parent who are also language broker as team members. Although health professionals might hold medical expertise within the language brokering team, child language brokers hold some authority in maintaining power dynamics, as Lacey does by always asking her mother for permission, regardless of whether or not the doctor is asking her to make a health-care decision. Parents also maintain power in language brokering encounters by acting as experts in health procedures (i.e. filling out forms, appointment procedures, vaccine injections, etc.) and also in their native language. For example, Tyler described instances in which his mother helped him to learn words in Spanish. Similarly, Jessie learned language regarding health supplements from her mother. The shifting in authority is also stimulated when team members’ roles and abilities overlap, as is the case for Dee and her mother. Likewise, the opportunity to learn language-brokering skills and gain procedural experience is also amplified with the presence of a parent language broker.

The final element this chapter considers is the shifting between languages (beyond Spanish and English) that brokering language for health makes possible. For example, Elle does

not switch from English to Spanish, but somehow repeating the word in English made it comprehensible to her mother. Jessie's experiences, in addition to requiring her to shift between Spanish, English, and health terminology, she also uses business language to help her mother sell health supplements.

CONCLUSION

This study was guided by the overarching aims to explore and illuminate elements and characteristics specific to brokering language in the health domain, and consider the health related knowledge and skills practiced by children brokering language for health purposes. An underlying aim for this dissertation was to link the concept of health literacy with child language brokering research. As the literature review chapter for this dissertation illustrates, child language brokering research is highly interdisciplinary; literature on the subject stems from various fields, including: education, social work, linguistics, sociology, and psychology. Although it may seem multiple fields of study and theories might cloud understanding of language brokering, it enables the opposite. Child language brokering research serves as a great example of how different disciplines can inform and build on each other's work to develop understanding about a complex social phenomenon. Following this trend, this dissertation sought to develop or grow another branch on the language brokering research tree by drawing from health and health literacy research to offer a different perspective on the work child language brokers do for health purposes. For this reason, an amalgam of theories and research on language brokering, education, literacy, health and health literacy scholarship informed my conceptual framework and methods.

The findings from this study are presented across three chapters, in this conclusion I overview each chapter briefly and tie each to the study aims. I also discuss issues related to study limitations and anxieties regarding children brokering language for health. The implications section of this chapter elaborates on the different ways this research might inform health organizations, health policies, and health care practitioner and providers, as well as education.

Findings

Chapter four, titled *Expanding the Domain*, presents an analysis of the health domain made evident from participants' descriptions of their experiences brokering language for health issues. This domain analysis supports this dissertation's overarching aim to explore and illuminate elements specific to the health domain. The domain analysis considers the spaces, collaborators/stakeholders, content, resources/tools, and health literacy themes present in language brokers' experiences. While many of the elements found in the analysis were anticipated, such as the settings in which participants brokered language for health included: doctor offices, pharmacies, and home, other settings were less anticipated. Unexpectedly, participants also brokered for health issues at school, and for one participant in particular, Jessie, brokering language for her mother's work with health supplements meant she brokered on buses, at stores, and openly in her community. Tyler brokered language for his parent teacher conferences and for school behavior- in Tyler's view and as I argue in chapter six, school behavior and behavior in general is a health related matter.

Inline with findings regarding spaces and settings, participants also described brokering language with and for expected and unexpected stakeholders and people, such as doctors, health practitioners, and office assistants. Less expected were customers (for Jessie's mother's business), teachers and school staff (per Tyler), and sometimes parents who were bilingual themselves and acted as primary or secondary language brokers in different encounters. Another way in which participants illuminated the health domain was by describing the resources they used to trouble shoot brokering language challenges. Participants mentioned using their phones, internet, online translation tools, their bilingual parents, bilingual clinic/doctor office assistants, and their own previous experiences. Finally, this study's domain analysis included health literacy themes observable in the content and activities described by participants. Health literacy themes

present in language brokers' experiences were related to a range of health issues, including the skills and experiences related to health behavior and understanding how health supplements function and are marketed.

The domain analysis offers a new and previously identified aspects and elements of brokering language in the health domain. Both new and established elements present different social issues to consider regarding children brokering language. For example, previous research has found practitioners and policy makers have reservations and anxiety related to the ethical and safety concerns of children interpreting for health. This dissertation did not study these issues specifically, as it was concerned with the overall exploration of the domain, however, elements introduced in this study might inform future research and understanding of the contexts, challenges, and supports language brokers experience in the health domain.

Chapter five, *Deeper Into the Unexpected*, presented more unique and unexpected (at least, to me) health encounters and opportunities for which participants brokered language. Jessie's experience brokering language for Healthy Way products was especially distinct, as it challenges how literature most often depicts children brokering language for health. Instead of Jessie brokering for her family as patients or consumers, she was brokering language for her mother as a product provider. Jessie's experience is particularly important because health care affordability and access is a contemporary political and social issue in the United States. Health supplements are a less invasive method of supporting health, and are often promoted as natural and holistic, affordable and accessible resource. In exploring Jessie's experience, chapter five, illuminated health supplements and health products presence in the health domain, coincidentally, complicating concerns about the safety or ethics of children brokering language for health issues and products. There are many questions that arise from Jessie's brokering

language for health supplements, and this dissertation did not examine every possible issue given the time and resource limitation. However, there are key issues that I highlight here, for research to consider and explore: What forms of alternative health resources are available and more accessible to LEP populations than traditional health care, and why? What kind of skills and literacy is used to promote health supplements and products? What kind of literacy, cultural, and language skills and knowledge can help people navigate and better understand health products? Finally, how and what can we learn from child language brokers' experience with health supplements and products?

Chapter five also examined Tyler's connection of his school behavior to health. I drew from Bandura's behavior theory (1977) to develop further the relationship between school behavior and health. In many ways schooling and classrooms are one of the first, if not the first, exposure to organized behavior models and expectations. In arguing that behavior and health are incredibly intertwined, I aimed to strengthen the notion that health behaviors and practices are developed in school beyond health curriculum, and that language brokering for schooling is language brokering for health. Again, illuminating school behavior as a health issue for which children broker language, may incite questions on whether it is fair for children to mediate encounters regarding their behavior and potentially behavioral needs. This dissertation did not explore this in greater depth, however, the link established in chapter five may serve as a different perspective for educators and researchers to consider how behavior and parent-teacher conferences matter for health and might fit within a holistic approach.

The final unexpected language brokering opportunity discussed in chapter five, is Dee's experience as second generation language broker. My exploration of Dee's experience sought to draw attention to the experience of being a second-generation language broker, and explains why

it matters for health. Dee was a prime example for this exploration since her mother is not only a first generation language broker, but also brokered for health as a telephone interpreter. I was surprised to find that instead of being sidelined because her mother could broker language for Dee's father, Dee was encouraged to broker language whether or not her mother was present. My findings also show that Dee's language brokering experience was not made any easier, as her mother also intervened to correct or scaffold Dee's brokering. This chapter's findings suggest, that having a parent language broker, may offer a supportive and unique learning environment for children to engage with language and health.

By diving deeper into lesser known aspects of children's experiences brokering language for health, this chapter aimed to illuminate new and important areas that need to be recognized and explored further. The three examples presented in this chapter also illuminate the different ways language brokers encounter health issues and may be learning about health.

Chapter six, titled *Shifting*, explored the fluidity and shifting of language, culture, roles, and people that occur in health related language brokering. This chapter aligns specifically with this study's aim to explore possible learning opportunities and embedded support in health related language brokering encounters. Previous research has explored the roles and power that overlap and shift when parents rely on their children to broker language. Some of this research focuses on the perils of creating an imbalanced parent-child relationship, and have used the term parentification. This study did not focus on parentification, and instead aimed to explore the fluidity and shifting of roles, language, culture, authority, as opportunities for children and parents to support each other's experiences and health knowledge. I adopted the idea of shifting from Eksner and Orellana (2012), which explores the idea that the dynamism of language brokering lends itself to learning and the co-construction of knowledge.

Successful language brokering depends on the flexibility and fluidity of language, culture, roles, etc., and thus collaborators often shift or take on multiple responsibilities and roles. One example of this dynamism was illustrated through Tyler's experience learning Spanish from his parents when he brokered language. Berto's experience at the doctor's office for his vaccines exemplifies that language brokering health encounters do not necessarily mean a role reversal between parent and child, but also consist of teamwork. While Berto did help broker language, his mother was also in charge of explaining Berto's vaccine needs and medical records, and she also helped Berto through his fear of needles so he could receive his vaccines. To explore this aspect of language brokering, Valdés et. al (2003) term *performance team* helped shape how I conceptualized language brokering work as being a collaboration and not solely dependent on the language broker. Dee's family also exemplified how shifting occurs in language brokering teams, not only brokering language responsibilities shift between Dee and her mother (who also brokered language for Dee's father), but the entire family shifted in languages (Spanish and English). The shifting that occurred in Dee's family, between language and language brokering roles, shed a light towards the future of language brokering research—more bilingual and more shifting and fluidity among language brokering teams.

Implications

Findings from this study suggest that there are diverse and a multitude of opportunities for language brokers to learn about health, participate in health, and also *contribute* to health activities. I argue that the opportunities, abilities and contributions explored in this dissertation can inform education, health, and health literacy research in regards to the ways children and families with limited English can manage health issues and also need more support.

Conversely, data from this study also highlights the need to understand the systemic practices that create a need for children to broker language and culture for health purposes in formal health settings, such as doctor offices, pharmacies, and hospitals or clinics. In addition to systemic issues, the social issues related to families preferring their children to broker language for health is equally important to recognize and understand, as it may inform how language assistance can be made more accessible, comfortable to use, and efficient in health care.

A great part of this study explores the brokering language experience in the health domain and aims to call attention to the potential educational aspects, however, it is also essential to consider how these experiences may impact the development of language brokers. Presumably, everyday health issues that are low stakes may not present a risk for language brokers or their families the way more critical and sensitive health issues could possibly impact young language brokers and their families. To this end, future research would provide great insights on this issue by utilizing risk and resilience models or frameworks to explore young people's experiences brokering language for an array of health issues and levels of urgency.

Future research

Health literacy: Throughout this dissertation, I have consistently used the term *health literacy* in discussing the skills and abilities child language brokers, their families, and other collaborators use to communicate health related information. In doing so I sought to create a link between child language brokering research and health literacy, which will hopefully be further developed by future research. Additionally, the link between health literacy and language brokering in this study can also inform health literacy research in regards to the kinds of skills and abilities not currently represented in health literacy research, frameworks, and assessments.

Health and Business: As stated earlier, LEP populations are less likely to have health insurance, and less in known about the kinds of health resources and practices this population utilizes in lieu of or in addition to formal health care. This dissertation provided insight on one such resource, which some uninsured individuals might consider in maintaining, improving, or treating health conditions: health supplements. Consequently, understanding how health businesses and supplement programs like Healthy Way, or other programs that advertise supporting health through vitamins, foods, nutritional shakes, or methods are important to study. Additionally, the role of children in such programs is especially important to consider. Future research should aim to examine the business and health knowledge children develop from participating in such programs, as well as the skills and education needed to make informed decisions when using such products.

School and Health: Although schools may provide health education programs, enforce nutritional guidelines, and are also tasked with the intellectual development of children-educators are not health practitioners and schools are not seen as health care providers. Yet, there is an undeniably close relationship between health and education, and participants in this study described school issues as health issues, and seeking health care (vaccines) in order to attend school. It is critical to continue research and understanding how education and health impact the development and life outcomes of students. In order to understand the relationship between education and health, it will be critical to explore and examine all the ways the two are related. This study illuminated that school behavior, health resources, and vaccines, are among the distinct ways the two institutions intersect. Another aspect that was not included in the findings was the idea of school safety, which one parent discussed with me. More specifically, she shared her concerns about her children's safety at a previous school, and the role of safety officers.

Future researcher might want to consider exploring vaccine requirements, parent-teacher conferences, and safety issues in linking school and health.

Concluding Thoughts

It is difficult to be certain what readers will take away from this dissertation or parts of this dissertation. For this reason, I would like to make clear in this section what I learned from conducting this study. First, the participants in this study shared with me their experiences, and in doing so they opened their lives to me, and I quickly learned that child language brokering is very different from when I was a child language broker. Child language brokering is more complex and exciting because of the Internet, social media, and cell phones. It is now possible for parents, if they like and able, to call someone to broker language for them or to use the internet to translate information. Still, language brokering is not being replaced with technology, instead, language brokers are now brokering language *and* technology for their families.

Each participant also had a heartfelt and intellectual impact on me, and this study. Dee introduced the element of second generation language brokers, an experience I have read very little about and have not experienced myself. Elle taught me that language brokers play key roles in the health of their siblings, and she also taught me that language brokering does not always require translation or explaining words, but sometimes it can mean repeating words so they become recognizable to others. Jessie taught me all about fan fiction writing, and more pertinent to this study, how businesses like Healthy Way function and grow. Tyler illuminated to me that school behavior is very much a health related issue and I am now certain that parent-teacher conferences are very much important for health. Berto opened my eyes to see that brokering language between two people, especially for one's own health care, is complicated on multiple levels, and that language brokers have a finesse to make these encounters seem simple. Jennifer

highlighted that sometimes, even when a parent is bilingual, they might still need language brokering, and that language brokers not only bring their linguistic and cultural tool kit to encounters, but sometimes a cool and calm presence to help make communication successful. Last, Lacey, left me speechless, not only in her ability to broker language so soon after migrating to the United States from Central America, but also because of her poise and the instincts she had when brokering unfamiliar language.

The future of language brokering is bright, and as the participants in this study have made me understand, brokering language will continue to have an impact for society.

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