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**LANGUAGE BROKERING CONSEQUENCES AS A FUNCTION
OF DEVELOPMENT**

by

Brent M. Gage

**Thesis submitted in partial fulfillment
of the requirements for the degree**

of

Departmental Honors

in

**Psychology
in the Department of Psychology**

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Abstract

Language brokering can be defined as a child mediating linguistically for a parent or other adult figure, either in spoken or written communication. This situation is a common occurrence among migrant and refugee families as children tend to acquire a new language at an accelerated rate in comparison with adults. As the immigrant and refugee populations continue to grow in comparison with native groups within the United States, it is increasingly important to understand the phenomenon of child language brokering. Moreover, it is particularly relevant to understand how the expectations for and consequences of language brokering may help to shape children across development. In this literature review, 17 articles were evaluated for themes related to child development and language brokering consequences. The extant literature suggests that both positive and negative outcomes exist for language brokers, and that these outcomes are potentially determined in part by context, level of acculturation, ethnic society immersion, family dynamics, and age of the child. Relevant developmental factors are also considered and expressed in relation to the language brokering phenomenon. One key finding that emerged from the current literature review is that very little is known about the prevalence and consequences of language brokering for children younger than 12 years of age. I discuss this notable gap and suggest ways that research can address this process among children. Understanding the negative and positive outcomes associated with language brokering can help to promote positive child adjustment in a new cultural landscape.

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Introduction

The process of acculturation, which involves adaptation to a new cultural environment, can be challenging for many migrant populations. Individuals who migrate to a new area typically must adapt to the local culture in order to optimally function in the receiving community. Along with difficulties related to areas such as legal status, employment, and education, migrants can also be faced with language barriers that impede or hinder functioning across domains. It is well established that children tend to acquire second languages at an increased rate in comparison with adults, and it is believed that this higher rate of acquisition is due to increased exposure through schooling during the sensitive period of language learning (Blom & Paradis, 2016; Krashen, Long, & Scarcella, 1979). Since children have an increased rate of acquisition, within families it is common for children to serve as translators and interpreters for their parents. This process of serving as a translator and interpreter is commonly termed language brokering, and children serving in this role are then called language brokers (Tse, 1995; Morales & Hanson, 2005). As the demographic makeup of the United States continues to shift toward a multi-ethnic, multi-lingual population with the proportion of immigrant born minorities increasing in proportion to historically domestic majorities there will be an increased need to understand the full impact of the language brokering process (Alba & Barbosa, 2016). In addition to the persistence of language brokering in new immigrant areas, research suggests that child language brokering is not merely circumscribed to new immigrant communities but is also found in areas with well-established immigrant populations, including in traditional ethnic-enclaves such as Los Angeles, San Francisco, and Chicago (Dorner, Orellana, & Li-Grining, 2007; Morales & Hansen, 2005; Weisskirch, 2005). Ethnic enclaves often serve as buffers delaying this acculturation, however, migrants still encounter many of the same

challenges common to all immigrants, although to a lesser degree (Roche, Lambert, Ghazarian, & Little, 2015). As this form of mediation is expected to continue due to the increasing diversity, the need to understand this activity and its associated consequences will continue to exist.

Defining Language Brokering

The literature surrounding language brokering tends to emphasize the fact that this form of linguistic mediation is essentially different from simple translating, interpreting, or bilingualism. In one of the first studies on language brokering, Tse (1995) described the process as more than mere translating of information, but of playing an active role in affecting the content and nature of the message. This in turn affects the brokers word choice and emotions as they serve as a bridge between cultures. Later research on the topic augmented this definition by stressing the fact that this process occurs within a relational context, primarily within the family unit (Dorner, Orellana & Jiménez, 2008). Straits (2011) emphasized the importance of this relational context by pointing out that "...the child's own perception of the situation, the child's emotional connection to family, and the child's dependence on innate bilingual abilities all combine to produce a brokering of language and culture" (p. 4). The dynamic role of language broker requires the child to engage in varied tasks and fulfill multiple responsibilities simultaneously.

While performing in this role, child language brokers are also tasked with translating and interpreting across a broad variety of contexts. Language brokering is not confined to everyday settings, such as minimarts and laundromats, but also banks, car dealerships, hospitals, as well as legal and social service settings (Dorner et al. 2008). Further research confirmed these findings and added such locations as police stations, ambulances, and retail locations (Corona et al., 2012). Dorner et al. (2008) also noted that interpreting was done for friends, store employees, and even strangers. This suggests that while parents may be the typical beneficiaries of the

linguistic mediation of their children there are potential circumstances in which these skills may be utilized by others. In addition to public settings, child language brokers may perform these duties extensively within the home through phone interactions or simple translation of documents (Tse, 1995). The diversity of context in which language brokering occurs combines the previous complexity of role and setting with the added dimension of vocabulary and syntax. The typical lexicon of a child or adolescent could prove insufficient to the demands of the situation, with a wide variation in abilities across the developmental spectrum. This encourages speculation as to the prevalence of language brokering among children and adolescents of different developmental levels and calls into question the processes and circumstances in which this phenomenon begins.

Language brokering is not a new phenomenon by any standard. However, it was only in the mid-1990s that researchers began utilizing empirical studies to understand the subject (Morales & Hanson, 2005). Previous research generally ignored the interpreting process and gave little or no attention to the prevalence or effects of language brokering among children and adolescents. Although it took time for scientific research to document language brokering outcomes, there is evidence to suggest that members of the community have often associated language brokering with negative results for children. Exemplifying this sentiment are laws implemented to limit the extent to which children can perform this duty for a parent (Coleman, 2003). Of these laws, a bill passed in California in 2002 restricts children from acting as linguistic mediators in legal, medical, or social service settings. Dangers such as damage to the parent-child relationship and potential trauma to the child were cited as reasons for its implementation (Coleman, 2003). However, others have suggested that language brokering also

produces numerous positive effects (Dorner, Orellana, & Li-Grinning, 2007; Guan, Greenfield, and Orellana, 2014; Weisskirch, 2013).

The positive and negative outcomes of language brokering have yet to be adequately quantified. Sufficient explanations for causal factors are also lacking, inviting further speculation into the conditions in which language brokering occurs. This activity is pervasive and the range of contexts and outcomes of language brokering is wide, therefore the inclusion of children of various ages is a possible consideration for determination of outcomes. Language brokering could have diverse effects on children and adolescents of different ages, which calls into question the prevalence, processes, and effects of this phenomenon across childhood and adolescence.

Child/Adolescent Development

It is a common misconception that the development of language is consigned only to early childhood. The ability to perform basic linguistic tasks in an interactive and informal manner, often termed conversational discourse, develops fairly quickly in young children (Nippold, Hesketh, Duthie, & Mansfield, 2005). This is an adaptive and necessary ability that appears to be of great value during childhood, and thus many consider it the end of development apart from the acquisition of more advanced vocabulary. Other aspects of language and speech such as syntax, however, have been demonstrated to continue in development and complexity into early adulthood, including the mid-to-late twenties (Nippold et al., 2005). In a large study using children, adolescents, and adults from multiple cultural and linguistic origins (including Dutch, English, French, Hebrew, Icelandic, Spanish, and Swedish), Berman & Verhoeven (2002) demonstrated that language usage increased in complexity with age. This study divided participants into age groups of 9–10 years, 12–13 years, 16–17 years, and 20–30 years, and

consistently provided evidence for increased elaboration and use of expository discourse (use of language to convey information) with increased age of the subjects. As previously stated, language brokering can occur in contexts as diverse as hospitals, police stations, and banks. The complexity of language and concepts utilized in these environments could play an important role not just in the accuracy or efficiency of children's interpretation in language brokering situations, but could also be associated with different consequences for children at different stages of development.

Language brokering is also associated with childhood and adolescent cognitive development (Doise, Mugny, & Perret-Clermont, 1975; Sills, Rowse, & Emerson, 2016). Central to cognitive development are the experiences of social interaction, discussion, and socio-cognitive conflict that are of immense importance to social development and the appearance of the Theory of Mind (Gillies, 2014), which is the understanding that others have their own thoughts, beliefs, and experiences (Baren-Cohen, 2001). Research suggests that Theory of Mind ability correlates with auditory comprehension in speech, as well as reading comprehension (Pavias, van den Broek, Hickendorff, Beker, & Van Leijenhorst, 2016). Theory of Mind generally develops in children between the ages of 4 and 7 years, and is associated with increased social interaction and improved performance on cognitive functioning tasks (Sills, Rowse, & Emerson, 2016). It has also been found that aspects of Theory of Mind related to perspective taking and emotional intelligence continue to develop during late childhood and adolescence, with many of these socio-cognitive changes being attributed to large structural developments within the brain (Blakemore, 2008; Pavias et al., 2016). Changes in brain areas involving mentalizing, reward, and self-control were also found to develop throughout adolescence and were determining factors in sensitivity to peer influence (Welborn et al., 2016).

exacerbated by factors such as the perpetual foreigner stereotype (an individual's experience of being constantly categorized as a foreigner) and bicultural management difficulty (an individual's struggle to manage the stresses of biculturalism). Both of these factors are important to the acculturation process experienced by immigrants and their children. Parent-child conflict presents a particularly difficult scenario for language brokers. The potential to take advantage of the language brokering power shift and gain power over the parent becomes a greater possibility for older children, and could perhaps be combatted with feelings of *familismo* (i.e. dedication to one's family) for younger children.

A successful transition into adulthood requires healthy development of what is termed the "social brain" during adolescence (Kilford, Garrett, & Blakemore, 2016). Social cognition, the ability to understand the world through the community in which we are engaged, is developed throughout childhood and continues to evolve into early adulthood. The formative years between puberty and independence are marked by drastic changes in factors directly impacting the development of an individual's social intelligence and abilities (Kilford et al., 2016), and these factors are related to language brokering outcomes.

There are a variety of developmental changes occurring throughout the childhood of a typical language broker that may influence the outcomes of language brokering. Developmental phenomena such as Theory of Mind and complex language development could illuminate illusive reasons behind differences found in language brokering consequences. A developmental approach could potentially provide key insights into trends associated with the outcomes of the language brokering process. It was therefore determined that a search of the existing scientific literature with emphasis on developmental implications would provide a more nuanced understanding of the positive and negative outcomes associated with language brokering.

Method

The current review focused on the existing empirical literature related to language brokering in order to understand the developmental implications of language brokering.

Review Objectives

The objectives for the review were to:

1. Critically review previous research in the area of language brokering and acculturation.
2. Examine studies that focused on participants of vulnerable populations, specifically immigrants and children under the age of 10 years old.
3. Evaluate different measures used to test prevalence and perception of language brokering that would be applicable to younger children.
4. Synthesize developmental themes in current literature related to child language brokering, specifically as they relate to consequence and outcome for the language broker

Keyword Search

Articles selected for this literature review were located using EBSCOHost and Google Scholar. Keywords included: *language brokering, language brokering development, language brokering age, language brokering acculturation, language brokering children, language brokering adolescents*. Searches were conducted using these primary search terms, however, because there are many developmental milestones reached or attained during late childhood, supplemental searches were performed specifically to seek studies with participants under the age of 10 years.

Inclusion-Exclusion Criteria

As there appeared to be a very limited amount of information regarding developmental changes and their relation to the act of language brokering, a liberal approach was taken to

inclusion criteria. The majority of resources were in the form of journal articles and dissertations, although other sources were not excluded. Research conducted with populations other than Latino immigrants were included as they were conducive to a general knowledge of the interpreting process. Research that was not related to language brokering issues was excluded.

Results

The search resulted in 17 studies, including 14 published articles and 3 dissertations. Ten studies focused on Latino/Hispanic youth of Mexican descent, five studies focused on Latino/Hispanic youth of mixed descent or of an unspecified descent, and two studies focused on Chinese American youth. Only one study in this sample did not provide information on average age of participants. Many included information on minimum and maximum ages of participants, and others included standard deviation from the mean. In instances when minimum and maximum age were not provided, these variables were estimated using available statistical information (typically SD of the Mean). Only one study included participants younger than 10 years old (Straits, 2011). The average age of participants in all studies reviewed was 14.02 years old (SD= 3.47) and the average age range for participants in all studies was 11.6 to 16.4 years old.

Table 1. SUMMARIES OF LANGUAGE BROKERING ARTICLES BY PREDICTOR OF LANGUAGE BROKERING OUTCOMES

| Theme | Author and Date | Sample Characteristics | Conclusions |
|---------|-----------------------------------|---|---|
| Context | Anguiano, 2013 | <i>N</i> =362, <i>M</i> age=13.62 yrs (11-18), Hispanic (73.8% Mexican descent) | High-Stakes language brokering experiences negatively predicted GPA, while everyday language brokering contexts positively predicted GPA, and Low-Stakes contexts did not predict GPA. |
| | Martinez, McClure, and Eddy, 2009 | <i>N</i> =73, <i>M</i> age=12.74 yrs (10-14), Hispanic (90% Mexican descent) | High language brokering contexts demonstrated higher levels of family stress, lower levels of parenting effectiveness, and poorer adolescent adjustment in terms of academic functioning, socioemotional health, and substance use. |

| | | | |
|------------|---|---|--|
| | Roche et al., 2014 | <i>N</i> =118, <i>Mage</i> =15.78 yrs (12-18), Hispanic (unspecified) | Language brokering within the home was associated with less parent-child closeness and less parental behavioral control. Language brokering within school and community was not associated with significant variations in parenting practices and parent-child relationships, and appeared to empower parents. |
| Perception | Coronal et al., 2011 | <i>N</i> =25, <i>Mage</i> =12.40 yrs (10-15), Hispanic (mixed descent) | Positive feelings were often described within the context of helping the family and bilingualism. Negative emotions were often linked to word finding difficulties in English and/or Spanish, and the use of more complex words or ideas in some contexts. |
| | Guntzville, 2015 | <i>N</i> =100, <i>Mage</i> =14.20 yrs (12-18), Hispanic (95% Mexican descent) | Harmony in perception of own and partners' goals related to language brokering was positively associated with mother-child relationship satisfaction. |
| | Kam and Lazeravic, 2014 | <i>N</i> =234, <i>Mage</i> =12.40 yrs (10-14), Hispanic (89.3% Mexican descent) | Negative language brokering feelings were positively related to brokering as a burden, depressive symptoms, and family-level acculturation stress, but negatively related to language brokering efficacy. |
| | Wu and Kim, 2008 | <i>N</i> =444, <i>Mage</i> ~12.5 yrs (11-14), Asian (100% Chinese descent) | Adolescents' perceived sense of mattering to parents and familial obligation are associated positively with a sense of efficacy as language brokers, and negatively with a sense of burden. |
| Frequency | Dorner, Orellana, and Jimenez, 2008 | <i>N</i> =12, <i>Mage</i> =14.42 yrs (11-16), Hispanic (91.7% Mexican descent) | Language brokering is a relational, interdependent activity. Birth order, family size, and parental language proficiency affect frequency of language brokering. |
| | Dorner, Orellana, and Li-Grinning, 2007 | <i>N</i> =280, <i>Mage</i> =11.20 yrs (10-13), Hispanic (unspecified) | Language brokering frequency was positively associated with standardized test scores in reading comprehension. Language brokering is prevalent even in well-established immigrant communities. |
| | Guan, Greenfield, and Orellana, 2014 | <i>N</i> =139, <i>Mage</i> =20.92 yrs (17-25), Mixed (34.8% Asian descent) | Language brokering frequency was positively associated with empathetic concern and prosocial development. |
| | Kam, 2011 | <i>N</i> =684, <i>Mage</i> =12.37 yrs (11-14), Hispanic (100% Mexican descent) | Language brokering frequency and negative feelings about brokering were positively associated with family-based acculturation stress, which was positively associated with alcohol use and other risky behaviors. |
| | Luna, 2013 | <i>N</i> =63, <i>Mage</i> =16.21 yrs (14-18), Hispanic (100% Mexican descent) | As language brokering frequency increased levels of internalized shame decreased, and levels of Mexican Orientation, hope, agency and resilience increased. |
| | Straits, 2011 | <i>N</i> =60, <i>Mage</i> = 7 yrs (4-10), Hispanic (primarily Mexican descent) | Language brokering occurred at a higher prevalence rate among the youngest age group than was suggested by prior studies. Language brokering frequency was positively associated with positive parent-child relationship. Language brokering also appeared to be positively associated with age. |
| | Tse, 1995 | <i>N</i> =35, <i>Mage</i> = 16 yrs (14-18), Hispanic (mixed descent) | Language brokering is positively associated with higher levels of English language ability. Established language brokering was common among language minorities. |

| | | | |
|--------------|----------------------------|--|--|
| Mixed | Niehaus and Kumpiene, 2014 | <i>N</i> =66, <i>Mage</i> = 12.56 yrs (11-16), Hispanic (mixed descent) | Frequency was negatively associated with academic self-concept and perceived popularity at school. Positive attitude about language brokering was positively related to academic self-concept, perceived popularity with peers, and confidence in one's physical appearance. |
| | Weisskirch, 2005 | <i>N</i> =55, <i>Mage</i> = 11.72 yrs (11-12), Hispanic (71% Mexican descent) | Language brokering frequency is negatively associated with levels of acculturation. Perception of language brokering positively influences ethnic identity. |
| | Weisskirch, 2013 | <i>N</i> =75, <i>Mage</i> = 20.82 yrs (18-25), Hispanic (100% Mexican descent) | Less parental support predicted language brokering burden, and increased frequency of language brokering predicted language brokering self-efficacy. Greater language brokering burden predicted negative overall self-esteem and general self-efficacy. |

Testing developmental influences

Age and language brokering. Foundational research for the topic of language brokering first suggested that this linguistic mediation does not typically begin until around ages 10 or 11, and later estimates have settled on an age around 8 or 9 (Buriel et al., 1998; Morales & Hanson, 2005; Tse, 1995) However, a review of the literature found that the age at which immigrant children begin linguistic mediation is correlated with age of arrival in the United States, and typically begins between 1 to 5 years after settling (Morales & Hanson, 2005). Many of the research studies in the Morales & Hanson (2005) sample collected data on average age of arrival to the United States, which was typically between 4 to 10 years of age. This statistic suggests that language brokering may occur much earlier than previously believed, as young as 4 or 5 years of age among immigrant children. however, very little research included tests of developmental influences in their designs.

Straits (2011) was the only study make any assertions related to age, based on 8-minute interviews with multiple parent-child dyads. During these interviews, researchers collected data on frequency and content of any instances of language brokering. Of the 62 total participants, 28 children (47%) engaged in language brokering during the 8-minute time frame. 43% of children

who engaged in language brokering did so only once during the interview, 25% of children who brokered did so 2 or 3 times, and 32% of children who brokered did so 4 or more times with 6 instances being the maximum. For statistical purposes children were split into three age categories: 4-5 years, 6-7 years, and 8-10 years. Occurrence of language brokering was positively correlated with the age of the child, but instances of brokering among all age groups were witnessed.

Importantly, the vast majority of language brokering studies have been completed using adolescents, typically ages 12-18. And although there is evidence that suggests that the act of language brokering becomes more frequent with age (Niehaus & Kumpiene, 2014) by the time participants are recruited for research studies language brokering can already be a well-established family dynamic. Dorner et al. (2008) found that for some of the participants in their study, language brokering was already a daily occurrence while attending fifth grade (at the time they began the study). This discrepancy in the ages of participants could have large effects on the results. Although age related trends were noted, they were not used to explain the results, nor were they used to clarify differences in outcomes.

In addition to age, researchers have attempted to identify common practices among families that utilize language brokers. According to the literature, children are more likely to engage in this form of mediation if they are female (Weisskerch, 2005) or the eldest child (Morales & Hanson, 2005). Morales & Hanson (2005) also found that families typically designate one child as the primary language broker, and rely on this child for the vast majority of interpreting or translating needs. This child can be chosen for a number of reasons including language fluency, confidence, and sociability (Luna, 2014).

Predictors of language brokering outcomes. Based on the review, three major themes were utilized to categorize predictors of language brokering outcomes across the studies: Context, Perception of language brokering, and Frequency. Research that considered contextual factors such as location and high or low-stakes scenarios was grouped in the Context section. Research that considered perception of the language brokering experience, before or after the event and by the broker or the parent, was grouped in the Perception section. Research that simply considered rate of language brokering was grouped in the Frequency section. Three studies considered multiple predictors in their research, and these were grouped in a separate section labeled "Mixed".

None of the research included a developmental model for studying language brokering outcomes. The two most common frameworks were simple frequency and perception of language brokering. Studies that utilized a frequency framework posited that language brokering outcomes were depended simply upon amount of language brokering. These studies sought to divide brokers into high and low frequency categories and quantify results. In studies that utilized perception of language brokering as their framework, the expectations of the broker and others involved in the process were the primary predictor of outcomes. The perception of the process and related features were measured and used as predictors of language brokering consequences.

Outcome studied. Understanding the positive and negative effects of language brokering has been the main focus of the research regarding this subject. Language brokering outcomes were classified in four major areas: Academic outcomes, Relationship outcomes, Negative Adjustment outcomes, and Positive Adjustment outcomes. Academic outcomes considered the effect of language brokering on school related performance issues. Relationship outcomes

considered the effect of language brokering on social interactions, especially with parents. Negative and Positive Adjustment outcomes considered the effect of language brokering on emotional factors, self-esteem, and risk behavior.

Academic outcomes. A number of studies found positive and negative effects of language brokering on the academic performance of the language broker. Associated negative effects included poor academic adjustment and poor academic self-concept. Associated positive effects included higher English language ability and positive academic self-concept. There were also positive and negative effects associated with GPA. High GPA was correlated with frequent low-pressure language brokering contexts, while low GPA was correlated with high-stakes language brokering experiences, such as those with grave consequences for the family. Dorner et al. (2007) also found that translating and interpreting work accomplished by the most active brokers for their families was positively related to standardized test scores in reading comprehension.

Relationship outcomes. There were multiple studies that looked at the effects of language brokering on various types of relationships, with particular emphasis on the parent-child dynamic. Associated negative outcomes included low parenting effectiveness, low parent-child closeness/parental behavioral control, and increased family based acculturation stress. These negative outcomes were associated with increased language brokering within a home context. Additionally, lower parental support predicted increased burden as a language broker. Associated positive outcomes included feelings of pride, increased mother-child relationship satisfaction, and increased positive parent-child relations. These positive outcomes were more associated with a positive perception of the language brokering process. It was also found that language brokering in school contexts was not associated with negative parenting practices and

appeared to empower parents. Children and parents who engage in this practice have associated positive emotions with language brokering as it is seen as a means of helping the family, promoting bilingualism, and increasing cooperation among family members (Corona et al., 2012).

Positive and Negative adjustment outcomes. The last category appeared to be outcomes related to the child's adjustment to emotional and social developmental changes. Associated positive effects included increased efficacy as a language broker, increased empathetic concern and prosocial development, decreased internalized shame, increased hope, agency, resilience, confidence in appearance, and increased ethnic identity. While positive outcomes are found among youth engaged in language brokering many studies also identified deleterious effects of brokering on children's anxiety, socioemotional adjustment, parents' effectiveness, shame, and guilt (Morales & Hanson, 2005; Martinez, McClure & Eddy, 2009; Luna, 2014).

Apparent causes for the associated positive and negative effects were also derived from the literature. The negative effects of language brokering appear to be associated with having difficulty with language, occurrence in home contexts, presence of family-based acculturative stress, and language brokering in High-Stakes situations. The positive effects of language brokering appear to be associated with increased orientation to culture of origin, occurrence in school contexts, and increased Low-Stakes brokering situations. No attempts were made in the literature to link these positive and negative outcomes to developmental processes.

Discussion

Although the intent of this study was to review the scientific literature regarding language brokering and development, limited research gathered data with the express purpose of

examining developmental factors associated with the frequency, context, or perception of language brokering either on their own or as related to outcomes. Even though there are many developmental factors that may contribute to outcomes of language brokering, including cognitive and social developmental milestones, this dynamic has essentially been ignored in the literature. The lack of explicitly developmental data has necessitated the interpretation of results not meant for that express purpose.

The majority of language brokering research has been conducted using participants in the adolescent category (12-18 years old). The goal of these studies has been to understand the causes behind the positive and negative outcomes of language brokering. The three main areas of focus of perception, context, and frequency have been used to demonstrate correlational relationships with many of the outcomes. Thus, there is supporting evidence for these influences of positive or negative perceptions of language brokering, everyday versus high-stakes language brokering, and varying frequency of language brokering, but no research has presented a comprehensive developmental model for how these factors may affect language brokering outcomes and none have been able to definitively prove a causal relationship between these factors and language brokering outcomes. This leaves open a bi-directional possibility for language brokering processes, which is particularly possible in a developmental framework given that collaborative actions like language brokering have been demonstrated to improve cognitive development in children (Doise, Mugny, & Perret-Clermont, 1975; Sills, Rowse, & Emerson, 2016). This suggests that there are important developmental factors missing in the current models, and perhaps a broader scope is necessary to identify and fully understand their implications for language brokering.

There is also limited information about when language brokering tends to emerge during development, and how it proceeds across development. The only study that included children under the age of 10 years was performed by Straits (2011). In this study, participants engaged in parent-child interviews that typically lasted 8 minutes. While Straits (2011) was able to document the occurrence of language brokering among a much younger group than had previously been studied, the method leaves many questions of the generalizability of the results. An 8-minute interview does not provide enough information to definitively state whether or not language brokering is a common practice in the parent-child relationship, especially as the interview was especially designed to elicit that response. The lack of verification of language brokering practices among children below the age of 10 years in real-world contexts remains a fault of the literature.

Inaccurate translations were also observed in the Straits (2011) study, and descriptive observations indicated that these inaccuracies were more likely among younger participants. Inaccurate translations and difficulty with language are factors that predict negative outcomes of language brokering. They can potentially put undue strain on the parent-child relationship and engender a sense of low self-efficacy in the language broker. As these mistakes were also found to be more common among younger participants in the Straits (2011) sample, it is easily assumed that younger children are at greater risk of these negative outcomes due to the greater frequency of mistakes and lesser developed language abilities. This study was the first to document language brokering at such a young age, and provides compelling evidence for the prevalence of language brokering among children as young as 4 years old. Yet we still know very little about the consequences of language brokering at this young age.

Another finding of the literature related to development is the context of language brokering. Roche et al. (2014) found evidence to support the idea that language brokering within the home has more detrimental outcomes than brokering in the community or school contexts. This could be due to the nature of the content being interpreted. School contexts are typically centered on the child's performance or interactions with teachers and peers. It is hypothesized that this empowers the parent and maintains their position of authority, giving them the opportunity to either praise the child for good performance or provide consequences for poor outcomes. This is in contrast to brokering within the home, when the focus may not be on the child's performance, but the parent's. Sensitive and important information meant for the parents, such as bills or tax information, but translated by the child creates a reversal in the power dynamic biased against the parent's authority. It is unclear from the research how this power dynamic is affected at different stages of development, however there is a possibility that younger children, who may be more comfortable with the recognized power structure, would be more affected by this role reversal than older children who are already seeking more autonomy and questioning the established family system (Marceau, Ram, & Susman, 2015). In addition to potentially undermining the roles of the parent this creates a high stakes brokering situation, which was also shown to predict negative outcomes (Anguiano, 2013). Although it was not observed in any of the cited research articles, it can be assumed that as children grow older less time is spent within home contexts and more time is spent in community or school contexts. This would provide increased opportunities for home-context language brokering for younger children, with the potential for more negative outcomes. This, however, is conjecture and is in need of further research.

The majority of language brokering research has been conducted using participants in the adolescent category (12-18 years old). The evidence from Straits (2011) documents the existence and prevalence of language brokering among a much younger demographic. Furthermore, this younger age group has not undergone much of the developmental evolution that occurs near the age of puberty. Cognitive development, especially relating to Theory of Mind and linguistic ability, are especially pertinent to the process of language brokering. Multiple studies have shown that aspects of language, like complex syntactic speech and narrative comprehension, continue to develop well into early adulthood (Berman & Verhoeven, 2002; Nippold et al., 2005). Difficulty with language has also been demonstrated to predict negative outcomes for brokers (Morales & Hansen, 2005), and Straits (2011) also documented greater language difficulty among the youngest participants. It is not a stretch to suspect that younger children are at a greater risk for some of the negative outcomes of language brokering due to these potential difficulties with language and comprehension, but the subject has received inadequate attention in the literature to begin to form any conclusions.

As this study focused on existing research, the methods necessarily limit the number of conclusions that can be reached; instead it facilitates the formation of questions in need of future study. Future research should seek to find connection between developmental changes and language brokering outcomes, especially in areas related to context, perception, and frequency of language brokering. The connection between cognitive and social development with language brokering outcomes needs to be further considered. Specifically, research should examine the potential influences of complex language development and shifting parent child relationship dynamics as related to language brokering predictors and outcomes. Additional verification of language brokering among children below the age of 10 years is an essential step for

understanding the effects of language brokering outcomes and their relation to development. These questions and many others require answers that cannot be provided from the current literature, and they should be considered in future research.

Conclusion

Although many factors have been studied in the current literature attempting to provide an explanation for the positive and negative effects of language brokering, none have been able to unilaterally account for the diverse outcomes of this process. A developmental perspective has potential to incorporate many of these differing findings by explaining outcomes in within a cognitive or social developmental framework, but without further research its application will remain a speculative exercise. The inclusion of measures testing language ability at different ages, development of Theory of Mind, and other age-related phenomenon will be necessary to further the research on this subject. One of the most important changes that need to be made in the study of this phenomenon is the inclusion of younger participants, especially under the age of 10 years. This age group has received very little attention in the literature, even though there is evidence to suggest that language brokering occurs among this population. Understanding differences in outcomes in this younger group will be essential to creating an effective model for the language brokering process and the associated consequences. In addition to better understanding the process of language brokering itself, inclusion of this age group will help to verify or nullify the generalizability of previous results across developmental trajectory.

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Author's Biography

Brent Gage was born and raised in Springville, Utah, where he graduated from Springville High School in 2010 with High Honors. He then went on to serve an LDS mission in Tennessee. Assigned to speak Spanish, his experience was centered on working with immigrant and refugee populations. This inspired him to continue working and studying these groups during his time at Utah State University. As a student in the Psychology department, Brent attempted to incorporate as many research experiences as he could. He volunteered in a metabolic engineering laboratory, assisted in water conservation research for the College of Natural Resources, acted as a Recruitment Specialist for the Choices Youth Health Study, and even travelled to Miami for a summer to work as a research assistant for a nationally acclaimed research program in Psychology. Brent also attempted to branch out from the traditional exposure in his department. He diversified his education with classes in Calculus, Arabic, Chemistry, Biology, Geology, and Art. In addition to coursework I he sought diverse applied experiences by working with at-risk youth, interpreting at a free health clinic, teaching for two years as a Supplemental Instruction Leader, working as a Peer Advisor, and volunteering as a REACH Mentor in the Counseling and Psychological Services Office. Perhaps the most impactful experience occurred this last Spring when I completed a Government relations internship with the Director of the Institute of Government and Politics at USU. He has received numerous awards including the Lawson Fellowship, USU A-Pin, USU Dean's List, USU Presidential Scholarship, and the Co-Undergraduate S.T.A.R. (scholarship, teaching, application, and research). Brent is currently in the process of applying to graduate schools where he hopes to create a career in academia.

Honor's Thesis Reflection Paper

This honors thesis project has been both rewarding and challenging in several ways. Over the course of a year and a half this thesis has taken shape, experiencing numerous changes in the process. I would highly recommend my experience in the Honors program to any USU student, and I feel that it has helped shape my future goals in a profound way.

My honors project was first conceived in the Spring of 2015 while I was working with Dr. Rick Cruz on a separate research project: The Choices Youth Health Study. I was a research assistant assigned to be the recruitment specialist due to my Spanish language ability. In my interactions with Dr. Cruz, we both expressed our interests in studying issues related to the Latino population within the United States. Through our discussions, we decided on studying the topic of language brokering, as it was relevant to both his experience as well as my own. I began gathering research articles and synthesizing the data into a coding table created to understand trends and theories related to the topic. There was a fair amount of scientific literature related to the phenomenon of language brokering, and I had a lot of work to do. During that summer, I began to understand the implications of much of the research regarding the subject, and I realized that there was a large portion of the population (children under the age of ten) who were not included in any of the research studies. This led me to propose to Dr. Cruz that we attempt to study language brokering in this younger population, and to do so from a developmental perspective. This was an approach never considered in the literature.

Since it was a novel framework, it required a lot of initial organization and research to discuss the topic from this perspective. I performed more searches and Dr. Cruz and I began to develop an empirical research study to gather data on this topic using children under the age of ten as subjects. After some time of developing this idea, I came across an article, a dissertation in

fact from a PhD student at Utah State University, that hadn't been published but was available in the USU archives. This study included participants in the younger age range, and documented interactions with these children as their parents in short interviews. This was almost identical to our plans for our research study, so we decided to pursue the developmental framework model in order to avoid duplicating previous research.

The decision to move forward with the novel approach of a developmental model did not require us to avoid the question of the inclusion of younger participants. In fact, it became a centerpiece of our argument. Because no studies had ever looked at this subject before, however, it made it very difficult for us to conceive of and implement an empirical research study without any basis of where to begin. This led us to the conclusion that it would be beneficial and even necessary to perform a literature review of the current scientific understanding of language brokering in order to find trends that outcomes that could potentially be utilized to create an empirical research study in the future.

At this point, it was necessary to recode the articles I had previously synthesized in order to understand them from a developmental perspective. We decided to focus on the interaction of developmental phenomena and language brokering outcomes, as the outcomes of language brokering were the focus of the majority of the research regarding this subject. I classified the outcomes by themes, and then began studying potential developmental implications related to them. After this groundwork had been completed, the process of writing the thesis began. Throughout the Spring, Summer, and Fall of 2016 I was heavily engaged in writing, editing, and rewriting my thesis paper. During the Spring I was also engaged in preparing and presenting a poster in the USU Spring Undergraduate Research Symposium. This was an interesting and

invaluable teaching experience as I was able to present on my research to several individuals who had no previous exposure to it.

The actual writing of the thesis was quite difficult, but very rewarding. I don't even remember how many drafts were passed back and forth between my faculty mentor and I. The experience was gratifying since I was the sole writer. I felt complete ownership of the project and I couldn't blame anyone else for failures, but I also received all of the credit for when any of it worked well. Receiving praise from my faculty mentor, while rare, was an incredibly motivating factor throughout the work. There were times when I felt that it would have been much easier to simply quit and take the easy route, but I couldn't be happier that I chose to persevere and finish the honors project. Towards the end, it became a much more intense push to finish the paper on time. Whereas early in the process it would take weeks or months to review drafts, in the last week multiple drafts were exchanged.

The advice that I would offer to future students who will begin this process centers around my own personal experience in changing the direction of my thesis. When I found that dissertation that was nearly identical to my plans, I felt a little crushed. As I met with my mentor, he was able to demonstrate how this could be a positive and improve the work we planned to do. Don't be discouraged with big changes in your work; it is all an opportunity. I would also recommend developing a very close relationship with your mentor. My interactions with Rick were always useful and engaging, and I could tell complete honesty about the project was key. If I didn't have that kind of relationship with him, the whole project would have been much more difficult. I would also highly recommend starting early. It took me a year and a half from start to finish to complete the whole thing before I graduated, and I thought I had a head start. Overall, it was an incredibly useful experience and I recommend it to anyone.