The Effects of Language Brokering Frequency and Feelings on Mexican-Heritage Youth’s Mental Health and Risky Behaviors

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Language brokering is the communication process where individuals with no formal training (often children of immigrant families) linguistically mediate for 2 or more parties (usually adult family members and individuals from mainstream culture). This study examined the direct and indirect effects of language brokering on mental health and risky behaviors. Mexican-heritage youth (N = 684) from schools in Phoenix, AZ, completed surveys at 3 waves from 7th through 8th grades. Language brokering frequency and negative brokering feelings were positively associated with family-based acculturation stress, which was positively associated with alcohol use and other risky behaviors. Yet, brokering frequency was negatively associated with other risky behaviors, and positive brokering feeling was negatively associated with cigarette use. Implications for these findings are discussed.


For many immigrants, a lack of familiarity with the U.S. institutional systems makes surviving in this new environment difficult, particularly with the added pressure to learn a new language and other cultural elements. Among immigrant families, younger members, usually children, often become proficient in English and mainstream U.S. culture faster than adults (Suárez-Orozco & Suárez-Orozco, 2001; Weisskirch & Alva, 2002). As a result, immigrant families regularly rely on younger members as language brokers—individuals generally with less authority and no formal training—who linguistically and culturally mediate for two or more parties (McQuillan & Tse, 1995). Past research found that youth brokered for their family at parent–teacher conferences and medical appointments; they helped family correspond with insurance agents and apartment managers, complete bank transactions, and call about job opportunities (Orellana, Dorner, & Pulido, 2003). This research suggests that young language brokers often participate in challenging interactions typically meant for adults (Weisskirch & Alva, 2002).

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Currently, the effects on the well-being of these intermediaries remain mixed (Morales & Hanson, 2005). The contradictory findings reflect two primary perspectives on brokering: the parentification and the stress assumptions. With the former, some researchers propose that brokering results in parentification when family members rely on children to carry out adult responsibilities to the point where it inhibits their natural development (Mercado, 2003). Others, however, view brokering more positively, arguing that this phenomenon does not lead to parentification but is, instead, an act of interdependence that is a natural way for children to assist their family (Orellana et al., 2003). In addition to the parentification assumption, the stress assumption maintains that brokering operates as a stressor because children may feel torn between multiple cultures, may handle complex cognitive and linguistic demands, and must ensure that their family has successful interactions with mainstream culture (Love & Buriel, 2007). These perspectives demonstrate the complexity of language brokering as a communication behavior with implications for individuals’ mental health, which requires further research.

To date, however, few studies (e.g., Mercado, 2003; Oznobishin & Kurman, 2009) have directly tested these assumptions regarding brokering’s effects. The ones that have considered such assertions often used small sample sizes and cross-sectional data. This study extends the brokering literature by using longitudinal data among a larger sample of Mexican-heritage youth to examine these rarely tested but widely held suppositions. In addition, language brokering frequency and feelings are distinguished from each other to investigate whether they yield different results. Finally, as the parentification and stress perspectives remain prevalent, they are rarely linked to theory. By incorporating role theory (Ashforth, 2001), interdependent/independent scripts (Dorner, Orellana, & Jiménez, 2008), and general strain theory (GST) (Agnew, 2001), rationales are provided for the assumptions and extended to the context of mental health and risky behaviors.

Applying the language brokering assumptions to mental health

To resolve some of the contradictions regarding the effects of brokering, this study first distinguishes between brokering frequency and feelings. Language brokering frequency in the family context refers to how often youth broker for a family member, and brokering feelings refers to the affective response one experiences when brokering (Buriel, Perez, De Ment, Chavez, & Moran, 1998). Although many different types of feelings exist, this study focuses on feeling good about oneself when brokering (i.e., positive brokering feeling) and feeling embarrassed or nervous when brokering (i.e., negative brokering feelings). This area of research would benefit from determining whether frequency and feelings operate in unique ways. The type of effect (negative vs. positive) may depend on a particular aspect of brokering, which leads to a consideration of the assumptions.
The parentification assumption versus interdependent/independent scripts

In the language brokering context, disagreement exists regarding the parentification assumption. On the basis of role theory (Ashforth, 2001), each role is associated with certain expectations for appropriate behaviors. Families often adhere to a hierarchical structure where older members have more authority, power, and control than younger ones, and older members are supposed to provide nurturing, security, and support (Love & Buriel, 2007). Yet, when younger family members engage in brokering, some researchers (e.g., Mercado, 2003) propose that a role reversal occurs in the form of parentification. Mercado (2003) and Oznobishin and Kurman’s (2009) studies found support for the positive association between brokering frequency and parentification. This phenomenon develops when adult family members rely on a child for instrumental and emotional support at the risk of obstructing the child’s appropriate developmental process (Stein, Riedel, & Rotheram-Borus, 1999). Parentified youth forgo their own needs to assist their parents or other family members.

Role theory and parentification apply to many other contexts, as well as language brokering. Children may experience parentification as “young carers,” providing support for a parent because of abandonment, death, divorce, a medical condition, or substance abuse (Amend, 2006). Stein et al. (1999) found that female adolescents who had a parent with acquired immunodeficiency syndrome (AIDS)-related illnesses were more likely to enact the spousal (i.e., parent disclosing personal secrets and personal problems to the child) and parental roles (i.e., child contributing to the decisions and providing advice), and female adolescents who had a drug-using parent were more likely to enact the parental role. In the aforementioned contexts, the literature often focuses on the negative effects of parentification (Oznobishin & Kurman, 2009). For example, parentified youth may form insecure attachments because they do not receive the support and cultivation from their parents that are necessary to create secure attachments, thereby placing youth at risk for developing unhealthy interpersonal relationships (Hooper, 2007b). Yet, more recently, researchers are beginning to examine whether parentification can be beneficial.

Among the brokering literature, some researchers (Dorner et al., 2008; Orellana et al., 2003) question whether brokers actually experience parentification, and if they do adopt adult responsibilities, they question how harmful it is for youth of immigrant families. When young brokers assist family members, it is possible that their cultural background leads them to perceive brokering as practical and appropriate. On the basis of interdependent/independent scripts, Dorner et al. (2008) argue that the parentification assumption requires a Western mentality that considers brokering as a premature act of independence that is detrimental to youth. Yet, in many immigrant families, adopting more responsibilities to benefit the family is perceived as a “normal” act of interdependence (Orellana et al., 2003). Proponents of interdependent/independent scripts include predictions that run directly counter to the parentification assumption because they view language brokering as beneficial to the family.
This study compares the competing assumptions. If the parentification assumption is correct, youth who engage frequently in brokering are more likely to experience parentification. On the basis of this perspective, brokering for family members requires children to prematurely accept adult roles, interact in adult situations, and make important decisions that impact the family (McQuillan & Tse, 1995). If Dorner et al.’s (2008) interdependent/independent scripts hold, the association between brokering frequency and parentification should not be significant. The following hypothesis represents the parentification assumption:

**H1:** Language-brokering frequency is positively related to parentification.

Previous research does not provide the basis for predicting the effects of positive and negative brokering feelings (Dorner et al., 2008). One might reason that children who feel good about themselves when brokering are more likely to report feeling in control of the experience and feeling more like an adult. Family members may be more likely to turn to youth who feel good about brokering when they have problems or need advice. In contrast, youth who have negative feelings about brokering may believe they have less power and control in the situation. Family members also may be less likely to approach these youth with their problems. Given the exploratory nature of the associations between brokering feelings and parentification, this research question was developed:

**RQ1:** How, if at all, do positive and negative brokering feelings relate to parentification?

**The stress assumption**

In addition to the parentification assumption, some researchers posit that language brokering functions as a stressor (Love & Buriel, 2007). Although managing multiple languages can be beneficial, children may feel torn between multiple linguistic and cultural identities when brokering, which may lead to stress. Brokering also may consume children’s free time and interfere with other responsibilities such as school, thereby inducing stress. Finally, brokers may feel pressured to correctly mediate for others, knowing that family members rely on them to successfully maneuver within mainstream culture (Weisskirch & Alva, 2002).

Although brokering may be related to many types of stresses, this study focuses on acculturation stress—the stressful experience that individuals encounter when adapting to the mainstream language and culture of their new environment (Guilamos-Ramos, Jaccard, Johansson, & Turrisi, 2004). Brokering is often seen as rooted in the acculturation process; therefore, it seems fitting that this study would consider a type of stress that children of immigrant families often develop. When mediating for family members, brokers must accommodate the mainstream language along with their family’s native language regardless of whether they were born in the United States or immigrated to the United States (cf. Crockett et al., 2007). As youth broker, they may become more aware of ingroup–outgroup memberships and feel torn between multiple languages and cultures—all predictors of
acculturation stress. Brokers who do not feel at home within the United States, do not feel like they belong in the United States, or feel frustrated with family for their lack of familiarity with mainstream culture may experience acculturation stress.

In keeping with the stress assumption, this study predicts that language-brokering frequency is positively related to acculturation stress. On the other hand, like parentification, little is known about the relationship between acculturation stress and positive or negative brokering feelings. One might reason that having negative brokering feelings (i.e., feeling embarrassed or nervous) is likely to be associated with higher levels of acculturation stress. In contrast, having a positive brokering feeling (i.e., feeling good about oneself when brokering) is likely to be associated with lower levels of acculturation stress. Hence, these hypotheses were set forth:

H2: Language-brokering frequency is positively related to acculturation stress.

H3: Positive brokering feeling is negatively related to acculturation stress.

H4: Negative brokering feelings are positively related to acculturation stress.

Extending the language brokering assumptions to risky behaviors

The parentification and stress assumptions reveal the potential for language brokering to exert beneficial and harmful effects on youth’s mental health. This study uses proponents of GST (Agnew, 2001) to extend the assumptions by considering whether brokering indirectly affects youth’s risky behaviors through parentification and acculturation stress. General strain theorists state that when experiencing a strain or a stressor, negative affective reactions are likely to emerge, and to reduce or escape from these reactions, individuals may rely on problem behaviors such as substance use, theft, and violence. Strains are “events, environments or processes that may ‘cause stress’ . . . that is [are] perceived or appraised as being either harmful, challenging, or benign” (Hooper, 2007a, p. 327). Language-brokering frequency and negative brokering feelings may act as strains, given their potential demands. Turning to problem behaviors, however, may not be inevitable (Agnew, 2001). Perceiving strains as unfair and of high magnitude is more likely to place youth at risk for problem behaviors.

In the past, GST researchers have considered anger as a mediator between strains and problem behaviors. Yet, Agnew, Brezina, Wright, and Cullen (2002) stated that anger partially mediates the association, leaving room for other intervening variables. With brokering frequency and negative brokering feelings, these strains likely predict different types of negative psychological and affective responses in the forms of parentification and acculturation stress, which youth may react to by engaging in risky behaviors. Past research supported these associations, showing that both parentification and acculturation stress were positively related to substance use.
H5: Parentification is positively related to substance use and other risky behaviors.

H6: Acculturation stress is positively related to substance use and other risky behaviors.

Taken together, these hypotheses result in a mediation model (Figure 1) representing brokering frequency and feelings’ indirect effects on substance use and other risky behaviors. As youth engage in brokering more often, they are likely to develop parentification (H1) and acculturation stress (H2), and in turn, they are more likely to cope by engaging in substance use and other risky behaviors (H5 and H6). As positive and negative brokering feelings’ effects on parentification have not been theorized or examined, these relations remain exploratory (RQ1); however, parentification is likely to be positively related to substance use and other risky behaviors (H5). Further, the model predicts that as youth experience a positive brokering feeling, they are less likely to experience acculturation stress (H3), and in turn, less likely to engage in

Figure 1  A hypothesized model of language-brokering frequency and feelings’ indirect effects on substance use and other risky behaviors.
substance use or other risky behaviors (H6). In contrast, as youth experience negative brokering feelings, they are more likely to experience acculturation stress (H4), and in turn, more likely to cope by engaging in substance use and other risky behaviors (H6). Thus, this study posits that:

H7: Language-brokering frequency and feelings indirectly affect substance use and other risky behaviors through parentification and acculturation stress.

Mexican-heritage youth’s language brokering and risky behaviors

Brokering occurs among a variety of ethnic groups (Chao, 2006), but this study focuses on Mexican-heritage youth because they form the largest percentage of children from U.S. immigrant families (Cavanagh, 2007). U.S. national survey data also revealed that compared to White and Black 8th grade students, Latino/a 8th grade students reported the highest use rates for most substances (Johnston, O’Malley, Bachman, & Schulenberg, 2007). Substance use is often accompanied by other risky behaviors such as stealing, violence, and skipping school (cf. Tucker, Martínez, Ellickson, & Edelen, 2008). To date, however, few studies have considered brokering’s effects on such outcomes. Results remain mixed, with one study finding brokering not significantly related to delinquent behavior (Chao, 2006) and another reporting that adolescents in high brokering contexts had higher substance use intentions (Martinez, McClure, & Eddy, 2009). Yet, past studies on brokering and substance use rarely incorporate theory or consider distinctions among brokering frequency and feelings. Consequently, research on Mexican-heritage youth would benefit from additional exploration into brokering’s association with problem behaviors based on role theory, interdependent/independent scripts, and GST.

Method

Self-reported data were collected from middle-school students in fall 2006, spring 2007, and fall 2008, which were waves 4, 5, and 6 of a substance use prevention program evaluation.

Participants

The data came from 684 7th through 8th grade students of Mexican descent who attended one of the 23 Phoenix, AZ (in the southwestern United States) schools that participated in the study. At wave 4, Mexican-heritage youth constituted 75% of the total sample, 33% of whom self-identified as Mexican and 67% as Mexican American. Their mean age was 12.37 years ($SD = 0.58$). The sample included 47% males and 53% females. In addition, 73% were born in the United States and 27% in Mexico. In contrast, 72% of the youth’s mothers and 74% of their fathers were born in Mexico. Most students (76%) had lived in the United States all their lives or for more than 10 years.
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Procedures
As a subcontractee, researchers at Arizona State University obtained approval from their human subjects institutional review board prior to this study’s implementation. Parents provided informed consent and students provided informed assent. At three different time points across a 2-year period, students completed the questionnaire administered by project personnel in homeroom, science, or health class. Questionnaires took approximately 45 minutes to complete and were printed in English and Spanish. Rogler’s (1989) back-translation method was used to establish translation fidelity. At wave 4, 96% of the youth completed the survey in English.

Measures
Items were modified for age appropriateness. Subsets of scales were used because of time constraints imposed by the school setting and because of the developmental needs of this age group (see Table 1 for bivariate correlations). To assess the dimensionality, confirmatory factor analyses (CFAs) were examined for multi-item scales based on Hu and Bentler’s (1999) model fit criteria. CFA results supported the dimensions and are available upon request.

Language brokering frequency (W4)
One modified item based on the person dimension from Tse’s (1995) Language Brokering Scale was used to ask, “How often do you translate for a family member(s)?—for example, interpret a letter, bill, conversation, or phone call in English

Table 1 Bivariate Correlations

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LBFRE = language brokering frequency; PLBF = positive language brokering feeling; NLBF = negative language brokering feelings; ADULT = adult parentification; PROB = problem-solving parentification; FSTRESS = family-based acculturation stress; OSTRESS = other-based acculturation stress; ALC = last 30-day alcohol use; CIG = last 30-day cigarette use; MAR = last 30-day marijuana use; ORISK = last 30-day other risky behaviors.

*p < .05. **p < .01 (two-tailed).
for a person who does not speak English” ($M = 2.72$, $SD = 1.37$; $1 = never$ to $5 = always$).

**Positive language brokering feeling (W4)**

One item was used from the feelings dimension of the Language Brokering Scale (Tse, 1995). The item was “I feel good about myself when I translate for my family” ($1 = never$ to $5 = always$; $M = 3.55$, $SD = 1.41$).

**Negative language brokering feelings (W4)**

Two items were used from the feelings dimension of the Language Brokering Scale (Tse, 1995). The items were “I feel embarrassed when I translate for my family” and “I feel nervous when I translate for my family” ($1 = never$ to $5 = always$; $r = .53$; $M = 1.76$, $SD = 0.87$).

**Parentification (W5)**

Two items from Jurkovic, Thirkeld, and Morrell’s (2001) scale captured adult parentification and two items from Mika, Bergner, and Baum’s (1987) scale captured problem-solving parentification. Adult parentification refers to whether youth perceive themselves as the adult in the family or more mature for their age. The items were “I often feel more like an adult than a child in my family” and “I am often described as mature for my age” ($1 = strongly disagree$ to $5 = strongly agree$; $r = .59$; $M = 3.09$, $SD = 1.04$). Problem-solving parentification refers to whether family went to these youth to solve problems or ask for advice. The items were “When my family has a problem, they come to me for advice” and “My family tells me about their problems as if I were another adult” ($r = .62$; $M = 2.78$, $SD = 1.10$).

**Acculturation stress (W5)**

Two dimensions of acculturation stress were operationalized by seven items based on the work by Gil, Vega, and Dimas (1994); Mena, Padilla, and Maldonado (1987); Romero and Roberts (2003); and Vinokurov, Trickett, and Birman (2002). Two items measured family-based acculturation stress ($r = .58$; $M = 1.24$, $SD = 0.47$), while five items measured other-based acculturation stress (Cronbach’s $\alpha = .81$, $M = 1.18$, $SD = 0.35$). For family-based acculturation stress, students responded to two items, “I get upset at my parents because they do not know American ways” and “My family thinks I am becoming ‘too American’.” For the other-based acculturation stress, students responded to five items such as “I do not feel at home here in the United States” or “I am embarrassed by the way I speak English.” Students used a 3-point scale ($1 = not a problem$ to $3 = big problem$).

**Last 30-day alcohol use (W3 and W6)**

Students reported the amount of alcohol consumption within the last 30 days from completing the questionnaire. One item (Graham et al., 1984) was used to ask, “How many drinks of alcohol have you had in the last 30 days” ($M = 1.92$, $Mode = 1$, $SD = 1.49$)? The youth used a 7-point scale ($1 = none$ to $7 = more than 30$).
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Last 30-day cigarette use (W3 and W6)
One item (Graham et al., 1984), asking, “How many cigarettes have you smoked in the last 30 days?” ($M = 1.22$, $Mode = 1$, $SD = 0.84$) measured cigarette use. Participants responded on a 7-point scale (1 = none to 7 = more than 20 cigarettes).

Last 30-day marijuana use (W3 and W6)
One item (Graham et al., 1984) asked youth “How many hits of marijuana (pot, weed) have you had in the last 30 days” ($M = 1.43$, $Mode = 1$, $SD = 1.27$)? Students used a 7-point scale (1 = none to 7 = more than 40 hits).

Last 30-day other risky behaviors (W3 and W6)
Six items were used from the Youth Risk Behavior Survey (Centers for Disease Control and Prevention, 2006) and from the work by Hawkins, Catalano, and Miller (1992). Students were asked, “How often have you done the following things in the last 30 days?” and responded to six activities such as “got into a physical fight” or “skipped school.” Cronbach’s $\alpha$ was .80 ($M = 1.36$, $SD = 0.53$; 1 = never to 5 = almost every day).

Analysis summary
This study used structural equation modeling (SEM) in Mplus 5.21 (Muthén & Muthén, 1998–2007). The maximum likelihood estimator with robust standard errors (MLR) was used, which is robust against nonnormally distributed data. Missingness was present across the waves. At wave 4, 684 youth completed the survey, 593 in wave 5 (13% attrition rate), and 515 in wave 6 (13% attrition rate). ML methods produce less biased parameter estimates and are usually better than traditional methods (e.g., listwise deletion); therefore, the full information maximum likelihood (FIML) method was used to address the missing data (Graham, 2009).

The data came from a substance use prevention program evaluation. Schools were randomly assigned to a control and two program conditions. The current study’s goal was to examine brokering’s effects on mental health and risky behaviors. Hence, in the SEM model, paths were examined from a dummy variable (control = 0; treatment conditions = 1) to all other variables in the model, but none of the paths were significant. The program did not have a significant effect. Prior substance use and other risky behaviors (measured at wave 3), time spent in the United States, ethnic identification, primary language spoken with family, and gender were included as covariates in the model.

This study also accounted for the multilevel-structured data. All but two variables (cigarette use and other risky behaviors) had intraclass correlation values of .02 or less. Consequently, the multilevel-structured data were accounted for by using TYPE=COMPLEX in Mplus, which calculates the standard errors and a chi-square test while considering the nonindependence of observations (Muthén & Muthén, 1998–2007).
Mediation requires that indirect effects be modeled from independent variables (IVs) to dependent variables (DVs) through potential mediators, and direct effects must be modeled from the IVs to the DVs (Preacher & Hayes, 2008). All of these paths were simultaneously estimated in the SEM model. To assess indirect effects, Preacher and Hayes suggest using bootstrapping to obtain bias-corrected confidence intervals (CIs), but Mplus 5.21 does not allow for bootstrapping with TYPE=COMPLEX (code to account for the multilevel-structured data). PRODCLIN (MacKinnon, Fritz, Williams, & Lockwood, 2007) was used, which handles the nonnormality in the product of coefficients’ distribution and computes asymmetric CIs.

Results

The SEM model fits the data well: $\chi^2(733) = 1088.89, p < .05$; the Comparative Fit Index (CFI) = 0.94; the Root Mean Square Error of Approximation (RMSEA) = 0.03, 90% Confidence Interval (CI) = 0.02, 0.03; the Standardized Root Mean Square Residual (SRMR) = 0.05. For clarity, Figure 2 shows only significant paths.
and correlations. The model explained 11% of the variance in adult parentification, 3% in problem-solving parentification, 6% in family-based acculturation stress, 10% in other-based acculturation stress, 9% in alcohol use, 8% in cigarette use, 9% in marijuana use, and 24% in other risky behaviors. The effect sizes were small, except for other risky behaviors, which were medium (Cohen, 1988). The results are reported with completely standardized path coefficients.

**H1 and RQ1: predicting parentification**
Contrary to H1, brokering frequency was not significantly related to adult (β = .04, SE = 0.05, ns) or problem-solving parentification (β = −.01, SE = 0.06, ns). For RQ1, positive brokering feeling was positively related to adult parentification (β = .24, SE = 0.08, p < .01), but not to problem-solving parentification (β = .09, SE = 0.06, ns). Negative brokering feelings were not significantly related to adult (β = −.05, SE = 0.06, ns) or problem-solving parentification (β = −.06, SE = 0.08, ns).

**H2–H4: predicting acculturation stress**
H2 received partial support. Brokering frequency was positively related to family-based acculturation stress (β = .15, SE = 0.05, p < .01), but not to other-based acculturation stress (β = .05, SE = 0.06, ns). Contrary to H3, positive brokering feeling was not significantly related to family-based (β = −.02, SE = 0.05, ns) or other-based acculturation stress (β = −.04, SE = 0.05, ns). As predicted in H4, negative brokering feelings were positively related to family- (β = .15, SE = 0.06, p < .01) and other-based (β = .13, SE = 0.066, p = .05) acculturation stress.

**H5 and H6: predicting substance use and other risky behaviors**
Contrary to H5, adult parentification was not significantly related to alcohol use (β = .03, SE = 0.06, ns), cigarette use (β = .05, SE = 0.06, ns), marijuana use (β = .08, SE = 0.06, ns), or other risky behaviors (β = .06, SE = 0.09, ns). Problem-solving parentification was not significantly related to alcohol use (β = .01, SE = 0.07, ns), cigarette use (β = .02, SE = 0.07, ns), marijuana use (β = −.03, SE = 0.08, ns), or other risky behaviors (β = .06, SE = 0.07, ns).

H6 received partial support. Family-based acculturation stress was positively related to alcohol use (β = .20, SE = 0.10, p < .05) and other risky behaviors (β = .20, SE = 0.10, p < .05), but not significantly related to cigarette (β = .19, SE = 0.12, ns) or marijuana use (β = .20, SE = 0.13, ns). Other-based acculturation stress was not significantly related to alcohol use (β = .02, SE = 0.08, ns), cigarette use (β = .02, SE = 0.11, ns), marijuana use (β = −.04, SE = 0.08, ns), or other risky behaviors (β = .07, SE = 0.09, ns).

**Direct effects: brokering predicting substance use and other risky behaviors**
To assess mediation postulated in H7, direct effects from the brokering variables to substance use and other risky behaviors were considered. Brokering frequency was
negatively associated with other risky behaviors ($\beta = -0.11, SE = 0.05, p < 0.05$), but not with alcohol use ($\beta = -0.04, SE = 0.06, ns$), cigarette use ($\beta = -0.05, SE = 0.05, ns$), or marijuana use ($\beta = -0.08, SE = 0.05, ns$). Positive brokering feeling was negatively associated with cigarette use ($\beta = -0.19, SE = 0.05, p < 0.001$), but not significantly related to alcohol use ($\beta = -0.02, SE = 0.05, ns$), marijuana use ($\beta = -0.11, SE = 0.07, ns$), or other risky behaviors ($\beta = -0.08, SE = 0.05, ns$). In contrast, negative brokering feelings were not significantly related to alcohol use ($\beta = -0.08, SE = 0.07, ns$), cigarette use ($\beta = -0.08, SE = 0.07, ns$), marijuana use ($\beta = -0.04, SE = 0.07, ns$), or other risky behaviors ($\beta = -0.01, SE = 0.09, ns$).

**H7: Brokering’s indirect effects on substance use and other risky behaviors**

Language brokering frequency exerted a significant indirect effect on alcohol use (95% CI = 0.002, 0.069) and other risky behaviors (95% CI = −0.037, −0.003) through family-based acculturation stress. Thus, family-based acculturation stress mediated brokering frequency’s association with alcohol use and mediated its association with other risky behaviors. Negative brokering feelings exhibited a significant indirect effect on alcohol use (95% CI = 0.001, 0.071) and other risky behaviors (95% CI = 0.001, 0.071) through family-based acculturation stress. Family-based acculturation stress mediated negative brokering feelings’ associations with alcohol use and other risky behaviors. Parentification was not a significant mediator. Neither adult or problem-solving parentification nor other-based acculturation stress operated as significant mediators. Hence, H7 was partially supported.

**Discussion**

Overall, the predicted mediation was observed in some cases, and the model accounted for small but significant amounts of variance in alcohol use, cigarette use, and other risky behaviors, as well as the mental health variables. Consistent with past research, this study’s findings illustrated the nuanced effects of brokering; under some conditions brokering appeared to have positive effects and under others it had negative effects. The distinction among brokering frequency and feelings, as well as the use of role theory, interdependent/independent scripts, and GST provided some clarification for these inconsistencies, which are elaborated upon in this section.

**The parentification assumption versus interdependent/independent scripts**

On the basis of the parentification assumption and interdependent/independent scripts, two key theoretical questions emerged: is language brokering an impetus for parentification and, if so, what are the implications of brokering for adolescents’ health-related behaviors? From one perspective, language brokering may disrupt appropriate familial roles and prematurely place more adult responsibilities on the child. This claim, however, garnered little support in the current study. Instead, only positive brokering feeling was associated with higher levels of adult parentification. Contrary to the assumption, as Mexican-heritage youth engaged in brokering more
often, they were not at risk for experiencing parentification. Further, although positive brokering feeling was related to higher levels of adult parentification, this relation was not necessarily problematic with respect to substance use and other risky behaviors. Neither types of parentification were significantly related to these problem behaviors.

Interdependent/independent scripts received support from these findings. On the basis of this perspective (Dorner et al., 2008), families that adhere to non-Western values are likely to perceive brokering as a natural and appropriate contribution to the family. In such cases, adopting adult responsibilities may be perceived favorably. Instead of brokering placing Mexican-heritage youth at risk for parentification, they may find such behaviors as acceptable, thereby leading to the nonsignificant associations. This study did not directly examine whether Mexican-heritage youth viewed brokering as a normal activity. Researchers would benefit from assessing such perceptions as a possible moderator between brokering and parentification.

The stress assumption
The results provided partial support for the second assumption in which brokering leads to stress (Love & Buriel, 2007; Mercado, 2003). Brokering frequency was positively associated with family-based acculturation stress, while negative brokering feelings were positively associated with both family- and other-based acculturation stresses. Negative brokering feelings exhibited a broader range of outcomes. The findings revealed a more nuanced representation of how brokering frequency and feelings operated with two types of acculturation stresses.

This study’s results extended the stress assumption by revealing that both brokering frequency and negative brokering feelings exhibited indirect effects on alcohol use and other risky behaviors through family-based acculturation stress. Interestingly, other-based acculturation stress was not a significant mediator. Family-based acculturation stress played a larger role and a more harmful role in the context of language brokering. This finding may reflect youth’s adherence to traditional Mexican culture that emphasizes interdependence, closeness, loyalty, and support among family members (Halgunseth, Ispa, & Rudy, 2006). Youth who follow traditional Mexican culture may be particularly sensitive to stress involving family members, thereby placing these youth at greater risk for engaging in problem behaviors. In short, the stress assumption received some support, but mainly with respect to family-based acculturation stress that involved both frequency and negative brokering feelings.

Implications for role theory, GST, and communication theory
When reflecting on this study’s theoretical contributions, the results informed role theory and GST, while also demonstrating the importance of incorporating such theories in communication research. In particular, tenets of role theory suggest that certain behaviors are associated with structural positions that family members hold (Biddle, 1986; Goldblatt & Eisikovits, 2005). The traditional view of parentification as a threat to adult–child roles, however, may be based on a Western cultural
perspective, which did not garner support in this study. According to role theorists, together, family members communicatively negotiate expectations and behaviors associated with their roles (Burnette, 1999), which often change over time through interactions (Biddle, 1986). Oznobishin and Kurman (2009) suggested that prior to immigrating to the United States, families may maintain traditional adult–child hierarchies, but when immigrating to the United States, these families rely on younger members for practical reasons. Immigrant families’ reliance on young brokers may be another way of readjusting their role expectations. It will be important for researchers to identify family communication that shapes such expectations. For example, underserved ethnic families often overtly discuss discrimination to prepare children for potentially negative experiences (Neblett et al., 2008). In the future, researchers may determine whether immigrant families discuss brokering and find communicative strategies to maintain a power hierarchy despite relying on children to broker. Parents may prepare their children for the role, conveying the expectations associated with the position, the types of settings they may find themselves in, and the types of reactions they may encounter from members of mainstream U.S. culture. A parent–child discussion on brokering may impact how children evaluate the entire experience, which in turn may have an effect on their feelings toward brokering.

With respect to GST, this study revealed the complexity of strains. The results of the direct and indirect effects illustrated how strains simultaneously functioned in both beneficial and harmful ways. As Mexican-heritage youth engaged in brokering more often, they were more likely to experience family-based acculturation stress, and in turn, more likely to engage in alcohol use and other risky behaviors. At the same time, however, inspection of the direct effects revealed that higher levels of brokering frequency were associated with lower levels of other risky behaviors. Through certain mediators, individuals may be at greater risk for engaging in unhealthy coping strategies, yet aside from such mediators, certain strains may not place individuals at risk for engaging in problem behaviors. These findings support the efforts of general strain theorists as they specify the conditions under which strains can be problematic.

Although GST maintains a history in criminology and sociology, this theoretical framework remains in its infancy in the communication field. The current findings suggest that GST may provide a powerful theory to explicate how and why certain communication (e.g., language-brokering frequency) and communication-related (e.g., negative brokering feelings) experiences operate as strains that not only exhibit direct effects on negative affect (e.g., family-based acculturation stress) but also exhibit indirect effects on harmful coping mechanisms (e.g., alcohol use or risky behaviors). This would suggest that GST is applicable to a number of other socially significant communication phenomena such as bullying, discrimination, physical and verbal abuse, infidelity, and other forms of communication that are likely to induce negative affective responses. Through GST, researchers gain a theoretical explanation for coping strategies used to attenuate negative affect stemming from certain communication interactions.
Implications for language brokering and risky behaviors

The results from this study painted a complex representation of language brokering frequency, which was indirectly related to higher levels of alcohol use and other risky behaviors. Yet, it was also directly associated with lower levels of other risky behaviors. These complex findings may be attributed to the amount of time youth must dedicate to assisting family members (Orellana et al., 2003). With limited free time, brokers are less likely to have opportunities to associate with risk-taking peers and/or engage in substance use and other risky behaviors (Caldwell & Smith, 2006). On the other hand, brokering frequency may be harmful when preventing youth from having time to complete their school work or develop successful peer relationships. Investigation into brokering frequency’s effects on youth’s free time would provide additional explication as to why brokering operated in both harmful (e.g., via indirect effects through family-based acculturation stress) and beneficial (e.g., via a direct effect on other risky behaviors) ways.

A deeper inspection also revealed that positive brokering feeling was beneficial, overall, in its association with lower levels of cigarette use. Positive brokering feeling was related to higher levels of adult parentification, but this relation did not appear detrimental (i.e., adult parentification was not positively significantly related to substance use or other risky behaviors). Conversely, negative brokering feelings were not only directly related to both acculturation stresses but they also were indirectly related to alcohol use and other risky behaviors. It appears, then, that youth’s feelings toward brokering were key factors in determining effects. Research is needed to identify the causes of these affects (e.g., why some youth form positive and others negative brokering feelings) as well as how to decrease negative brokering feelings. In addition, researchers may determine coping strategies for language-brokering youth, given that immigrant families often have no choice but to rely on brokering (Weisskirch, 2006).

Limitations and future directions

In addition to this study’s findings, several limitations existed. The SEM analysis yielded small effect sizes for all the variables, except for other risky behaviors. Nevertheless, these effect sizes were similar to effects found in past studies on adolescent substance use (e.g., Cleveland, Gibbons, Gerrard, Pomery, & Brody, 2005). Moreover, in situations where the research involves great consequences such as early problems with mental health, substance use, and other risky behaviors, small effect sizes should not be discounted (Prentice & Miller, 1992).

Another limitation involved measurement. Single-item measures and shortened scales were used because of time limitations imposed by the schools and the specific age group, which is not uncommon in community-based public health research. This approach may not be detrimental. In a meta-analysis (Wanous, Reichers, & Hudy, 1997), single-item and multi-item scales of job satisfaction had an overall high mean correlation, providing evidence that single-item measures can be adequate. Yet, it is not clear if this result applied to the current study. More elaborate measurement will
likely benefit future research in capturing language brokering as a multifaceted and complex communication phenomenon.

For example, brokering measures may be incorporated based on role theory in which individuals may experience difficulty meeting the behavioral expectations associated with their positions (Biddle, 1986; Goode, 1960). Language brokers may lack the vocabulary required to enact their role. If brokers have not participated in certain interactions (e.g., bank transactions, paying bills), they may not know how to perform their roles. Brokers may feel overwhelmed by the behavioral expectations they must enact, may not have enough resources to meet the role expectations, or may have too many roles to fulfill at one time (Goode, 1960). Language brokers also may experience different types of role strains depending on the brokering context (e.g., public vs. private setting, the importance of the consequences) and the broker’s competence (e.g., brokering efficacy). Measuring these variables would allow researchers to determine when brokering places youth at risk for poor mental health, and in turn, problem behaviors, as well as provide contributions to role theory and GST.

A final limitation was in this study’s narrow attention to the variations among Mexican-heritage youth that may have influenced their brokering frequency and feelings. Although acculturation variables were included as covariates, they were not part of this study’s focus. Time spent in the United States, primary language spoken with family, generation status, and attitudes toward U.S. culture are likely to predict how often youth engage in brokering, with more acculturated families relying less on brokering (Mercado, 2003). Pressure to adopt the language, values, norms, and beliefs of mainstream culture may lead youth to feel more embarrassed and nervous when brokering (Oznobishin & Kurman, 2009). In addition to acculturation factors, school and neighborhood composition may contribute to different brokering frequencies and feelings. Among the 23 participating schools from Phoenix, AZ, Mexican-heritage youth comprised the majority at each school and in each neighborhood. Their brokering experiences may be less frequent and their feelings when brokering may vary compared to Mexican-heritage youth who are the minority. The current sample may not represent other youth of Mexican descent; therefore, this area would benefit from future research examining the variations in brokering experiences among Mexican-heritage youth in different contexts.

**Concluding remarks**

Within the United States, immigrants’ success in managing their daily activities is often predicated on their ability to communicate in an English-dominated country and to maneuver within mainstream culture (Shin & Bruno, 2003). This need to communicate in a different language and culture remains a challenge for many immigrant families, forcing a number of them to rely on younger family members as language brokers. The literature on language brokering suggests that although such activities may be important for family, they may have both positive and negative
consequences for the language-brokering children (Morales & Hanson, 2005). This study provided evidence of the complex and nuanced nature of language brokering by: (a) distinguishing between the effects of brokering frequency, positive brokering feeling, and negative brokering feelings and (b) testing aspects of the primary assumptions while integrating theory to demonstrate effects on risky behaviors. Given this study's findings and the pervasiveness of the immigrant experience, language brokering may present a significant public health concern and challenge to communication theory that warrants further investigation.

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References


The Effects of Language Brokering

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语言调解频率和感情对墨西哥裔青少年心理健康和危险行为的影响

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【摘要：】

语言调解是指没有受过正规语言训练的人（通常是移民家庭的孩子）调解两方或多方（通常是成年家庭成员和主流文化人士）的传播过程。本研究探讨语言调解对心理健康和危险行为的直接和间接的影响。来自亚利桑那州凤凰城学校的7年级到8年级的墨西哥裔青少年(N=684)完成了三次调查。语言调解的频率和负面调解情绪与以家庭为基础的文化适应的压力呈正相关，以家庭为基础的文化适应的压力与酗酒和其他危险行为有关。然而，语言调解频率与吸烟行为呈负相关。最后本文就这些研究结果的影响进行了讨论。
Die Wirkungen von Sprachvermittlungshäufigkeit und Gefühlen auf die mentale Gesundheit und Risikoverhaltensweisen von Jugendlichen mexikanischer Herkunft


Schlüsselbegriffe: Sprachvermittlung, Parentifizierung, Akkulturationsstress, Drogenkonsum, mexikanisch, Jugendliche, Rollentheorie, Allgemeine Belastungstheorie, interdependente/unabhängige Skripts
요약
언어중재는 공식적 훈련을 받지 못한 개인들이 언어학적으로 두개 이상 집단(일반적으로 성인가족구성원들과 주류 문화로부터의 개인들)에 대한 언어학적 매개이다. 본 연구는 정신건강과 위기 행위들에 대한 언어중재의 직접적이고 간접적인 효과에 대한 연구이다. 아리조나주 피닉스시에 있는 학교에서 멕시코계 젊은이들(N=684, 7-8 학년)에 대한 서베이를 단행했다. 언어중개빈도와 부정적인 중재감정들은 가족에 근거한 정확성강조와 긍정적으로 연계되었는바, 이는 알콜사용과 다른 위기 행위들에 대해서도 긍정적으로 연계되었다. 그러나, 중재빈도는 다른 위기 행위들과는 부정적으로 연계되었으며, 긍정적인 중재감정은 흡연과 부정적으로 연계되었다. 이러한 발견들에 대한 함의들이 논의되었다.
Los Efectos de los Mediadores del Lenguaje y los Sentimientos de la Juventud de Herencia Mejicana sobre los Problemas Mentales y los Comportamientos de Riesgo

Resumen
La mediación del lenguaje es un proceso de comunicación donde los individuos sin entrenamiento formal (a menudo los niños de las familias inmigrantes) median lingüísticamente entre dos o más partes (usualmente entre los miembros adultos de una familia y los individuos de la cultura dominante). Este estudio examinó los efectos de la mediación del lenguaje sobre la salud mental y los comportamientos de riesgo. La Juventud de herencia Mejicana (N= 684) de las escuelas en Phoenix, Arizona de los grados séptimo al octavo completaron encuestas de tres tiempos. La frecuencia de la mediación del lenguaje y los sentimientos negativos hacia la mediación fueron positivamente asociados con el estrés de la aculturación de la familia, el cual fue asociado en forma positiva con el uso del alcohol y otros comportamientos de riesgo. Aún cuando la frecuencia de mediación fue asociada negativamente con otros comportamientos de riesgo, y el sentimiento positivo de la mediación fue negativamente asociado con el uso del cigarrillo. Las implicancias de estos hallazgos son discutidos.

Palabras Claves: mediación del lenguaje, identificación con los padres, estrés cultural, abuso de sustancias, adolescentes Mejicanos, teoría del rol, teoría general de la tensión, guiones interdependientes/independientes
Les effets sur la santé mentale et sur les comportements à risques pour les jeunes d’origine mexicaine de la fréquence de la médiation linguistique et de leurs sentiments à son égard

Résumé

La médiation linguistique (language brokering) est le mécanisme communicationnel par lequel des individus sans formation formelle (souvent des enfants de familles immigrantes) traduisent entre deux ou plusieurs parties (habituellement les membres adultes de la famille et des individus de la culture majoritaire). Cette étude a examiné les effets directs et indirects de la médiation linguistique sur la santé mentale et les comportements à risques. Des jeunes d’origine mexicaine (N=684) fréquentant des écoles de Phoenix (Arizona) ont complété des sondages à trois moments entre leur septième et leur huitième année scolaire (NDLT : entre 12 et 14 ans). La fréquence de la médiation linguistique et les sentiments négatifs liés à cette médiation étaient associés positivement au stress familial lié à l’acculturation, qui était à son tour associé positivement à la consommation d’alcool et à d’autres comportements à risques. Néanmoins, la fréquence de la médiation était négativement associée à d’autres comportements à risques et les sentiments positifs liés à la médiation étaient négativement associés à la consommation de tabac. Les conséquences de ces résultats sont commentées.

Mots-clés : médiation linguistique, parentification, stress lié à l’acculturation, consommation de substances, origine mexicaine, adolescents, théorie des rôles, théorie générale de la contrainte, scripts interdépendant/indépendant