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Language Brokering and Depressive Symptoms in Mexican American Adolescents: Parent-Child Alienation and Resilience as Moderators

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Abstract

The current study aimed to untangle the mixed effects of language brokering by examining a contextual factor (i.e., parent-child alienation) and a personal attribute (i.e., resilience) that may relate to adolescents' feelings during translating (i.e., sense of burden and efficacy) and that may moderate the association between such feelings and adolescent depressive symptoms. Participants included 557 adolescent language brokers (M_{age} = 12.96) in Mexican-American families. Results showed that adolescents with a strong sense of alienation from parents or low resilience a) experienced more burden or less efficacy in translating, and b) were more susceptible to the detrimental effects of feeling a sense of burden and the beneficial effects of experiencing a sense of efficacy, as measured by depressive symptoms.

Keywords

language broker; burden; efficacy; parent-child relationship; resilience

According to the U.S. Census Bureau report, there were approximately 42 million foreign-born individuals residing in the United States in 2014, comprising 13% of the nation's population (Colby & Ortman, 2015). The majority of the foreign-born individuals (53%) were born in Latin American countries (Grieco et al., 2012), among which 61% reported speaking English less than "very well" (Gambino, Acosta, & Grieco, 2014). Immigrants' English skills are positively associated with their ability to manage everyday activities and to get a good job (Bleakley & Chin, 2004). In immigrant families, such as those in the U.S., children often become familiar with the host language and the mainstream culture at a faster rate than their parents (Chao, 2006; Morales & Hanson, 2005). As a result, children of immigrants often serve as "language brokers" who translate and interpret for parents (McQuillan & Tse, 1995). As the literature on this topic does not usually distinguish

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between translation and interpretation tasks, we use the terms “language brokering” and “translating” interchangeably. Language brokering is a challenging task for children and adolescents. Understanding how language brokering experiences relate to children’s and adolescents’ well-being is important and can contribute to a broader understanding of immigrant families’ adjustment (Kam & Lazarevic, 2014a).

Previous studies have demonstrated both negative and positive effects of language brokering on individual adjustment (Morales & Hanson, 2005; Shen, Kim, Wang, & Chao, 2014; Weisskirch, 2007). Such mixed effects may be due to the large variation in language brokers’ feelings about translating–from negative feelings, such as a sense of burden, to positive feelings, such as a sense of efficacy (Kam & Lazarevic, 2014b; Weisskirch, 2007; Wu & Kim, 2009). While negative feelings are detrimental, positive feelings about language brokering are beneficial for child adjustment (Kam & Lazarevic, 2014b; McQuillan & Tse, 1995; Trickett & Jones, 2007; Weisskirch, 2006). Thus, to untangle the mixed effects of language brokering, it is important to examine factors that account for the variations in children’s feelings about language brokering and factors that moderate the effects of such feelings on child adjustment. Exploring these factors can inform interventions aimed at improving language brokers’ adjustment.

The bioecological model suggests that similar experiences may have different implications for individuals, depending on the contexts in which the experiences occur and individuals’ personal attributes (Bronfenbrenner & Morris, 2006). Contextual factors and personal attributes may be factors that place individuals at various levels of susceptibility to the influence of both negative and positive experiences (Belsky & Pluess, 2009). In the case of language brokering, one important contextual factor may be the parent-child relationship context (Morales & Hanson, 2005; Weisskirch, 2007, 2013; Wu & Kim, 2009). For example, Hua and Costigan (2012) demonstrated that, in an especially unsupportive parent-child relationship context, adolescents are more susceptible to the negative effects of language brokering on their adjustment. As for personal attributes, the trait of resilience–the ability to bounce back from a negative experience–has been shown to be a key factor relating to how individuals go through adverse situations (Connor & Davidson, 2003; Fredrickson, Tugade, Waugh, & Larkin, 2003). Therefore, the current study aimed to examine parent-child relationship quality (parent-child alienation) and child resilience as two factors that a) may associate with children’s feelings (sense of burden and efficacy) for translating, and b) may relate to children’s degree of susceptibility to the influence of feelings about translating, as measured by depressive symptoms.

Feelings about Language Brokering and Adolescent Adjustment

Language brokering is a demanding and difficult task for adolescents. It requires language brokers to master at least two languages (and cultures) and to sacrifice time that may be otherwise used for study or having fun with friends (McQuillan & Tse, 1995; Weisskirch, 2006). Language brokers’ psychological experience of brokering is complex; they may simultaneously experience both negative and positive feelings about translating. On the one hand, they may feel desperation, worry about disappointing their parents, and would rather not translate for their parents (Kam & Lazarevic, 2014b; Morales & Hanson, 2005;

Weisskirch, 2007). In other words, they may feel that language brokering is a psychological burden for them. On the other hand, adolescents may perceive efficacy in translating (Kam & Lazarevic, 2014b; Kim et al., 2014; McQuillan & Tse, 1995; Weisskirch, 2007). For example, adolescents reported that language brokering allowed them to become more independent, gave them more opportunities to learn, enhanced their cognitive skills, and allowed them to gain the trust of their parents (McQuillan & Tse, 1995; Tse, 1996).

How adolescents feel about translating can have significant implications for their adjustment. Negative feelings, or the psychological burden of language brokering, can place adolescents at a higher risk of depressive symptoms (Kam & Lazarevic, 2014b; Trickett & Jones, 2007; Weisskirch, 2006). On the other hand, a sense of efficacy in translating can benefit adolescent development, by boosting adolescents' confidence and self-esteem and decreasing their depressive symptoms (Kam & Lazarevic, 2014b; McQuillan & Tse, 1995). When it comes to predicting adolescent adjustment, feelings about translating may be a more important measure of language brokering compared to frequency. Kam and Lazarevic (2014b) demonstrated that when brokering frequency and feelings were simultaneously included to predict adolescent adjustment, only feelings about brokering emerged as significant predictors. However, previous language brokering studies have mainly focused on the frequency of language brokering (Roche, Lambert, Ghazarian, & Little, 2015; Shen et al., 2014; Weisskirch, 2013). Hence, the current study focuses on adolescents' sense of burden and efficacy when translating, while statistically controlling for brokering frequency.

Explaining Variation in Feelings about Language Brokering

The extent to which adolescents feel burden or efficacy in translating can vary across individuals (Kam & Lazarevic, 2014b; Kim et al., 2014; McQuillan & Tse, 1995; Weisskirch, 2007). Yet, it is not clear what contributes to such variations. Thus, the present study is designed, in part, to elucidate factors associated with individual variations in adolescents' feelings about translating by considering two important factors: parent-child relationship and adolescent resilience.

Language brokering takes place within a parent-child relationship context. Previous studies have suggested that children's role in language brokering may affect parent-child dynamics (Chao, 2006; Morales & Hanson, 2005; Shen et al., 2014; Weisskirch, 2007). For example, the authority position of the parents may be compromised when they rely on their children for translation (Weisskirch, 2007). On the other hand, through language brokering, adolescents may gain parents' trust (McQuillan & Tse, 1995) and increase their understanding of and respect for their parents (Morales & Hanson, 2005; Shen et al., 2014). When it comes to adolescents' psychological experiences of language brokering, parent-child relationship quality may influence adolescents' sense of burden and efficacy about translating (Weisskirch, 2007, 2013; Wu & Kim, 2009). When adolescents have a strong sense of alienation from parents, they feel that their parents are detached from them and unresponsive to their needs and concerns (Armsden & Greenberg, 1987). In such a parent-child relationship context, adolescents may not garner the support they need from their parents to perform language brokering tasks. If so, adolescents who feel a strong alienation from parents may feel more burdened and less efficacious when translating for their parents.

Besides the parent-child relationship context, adolescents' personal attributes may also relate to their feelings about language brokering. Resilient individuals have the confidence to deal with whatever comes, are not easily discouraged by failure, and tend to recover easily after an illness or hardship (Connor & Davidson, 2003; Luthar, Cicchetti, & Becker, 2000). For this reason, resilient adolescents may not be easily discouraged, feel impatient, or experience desperation when they have difficulty translating for their parents; that is, they may be less likely to experience a psychological burden related to language brokering. Moreover, resilient adolescents may feel more efficacious when translating because they may be more confident in their translating abilities and are likely to cope better with difficulties encountered while language brokering.

Moderating the Links between Feelings about Language Brokering and Adolescent Adjustment

Adolescents can vary in their degree of susceptibility to the influence of their language brokering experiences (Hua & Costigan, 2012; Kam & Lazarevic, 2014b; Love & Buriel, 2007). Identifying factors that may relate to susceptibility is of particular importance to provide a more nuanced picture of the relation between adolescents' feelings about translating and their psychological adjustment. According to the differential-susceptibility theory, those who are more vulnerable to the adverse effects of unfavorable contextual factors may also be the same ones who would benefit the most from positive experiences (Belsky & Pluess, 2009). Therefore, the present study investigated parent-child alienation and adolescent resilience as two factors relating to adolescents' susceptibility to the effects of both negative and positive feelings about translating, by examining their moderating roles in the links between feelings about translating and depressive symptoms.

High parent-child alienation, which has been shown to be a risk factor for adolescent depressive symptoms (Allen, Porter, McFarland, McElhaney, & Marsh, 2007; Armsden & Greenberg, 1987; Kim, Chen, Wang, Shen, & Orozco-Lapray, 2013), can be regarded as a particularly unsupportive developmental context. Prior theories suggest that children in especially unsupportive contexts are more susceptible to contextual influences, as they maintain high levels of stress reactivity in such contexts for adaptive reasons (Belsky & Pluess, 2009; Boyce & Ellis, 2005). For example, when parent-child relationship quality was low, parent-child acculturation discrepancies were more strongly associated with adolescent internalizing and externalizing outcomes (Schofield, Parke, Kim, & Coltrane, 2008) and adolescent testosterone-linked risk-taking behaviors and symptoms of depression were more apparent (Booth, Johnson, Granger, Crouter, & McHale, 2003). Hence, when parent-child alienation is high, children would have higher levels of susceptibility to the influence of language brokering.

Previous studies that have taken a diathesis-stress approach to examining individuals' vulnerability to adverse situations have often highlighted resilience as one of the most important personal attributes that help to determine individual vulnerability to adversity (Bogar & Hulse-Killacky, 2006; Burrow-Sánchez, Corrales, Jensen, & Meyers, 2014; Campbell-Sills, Cohan, & Stein, 2006; Fu, Leoutsakos, & Underwood, 2014). Less resilient

individuals are more vulnerable to adverse experiences (Burrow-Sánchez et al., 2014; Fu et al., 2014; Peng et al., 2012) and thus may experience more depressive symptoms when they feel a sense of burden during translating. For adolescents with high resilience, on the other hand, even when they have difficulty and experience negative feelings (e.g., sense of burden) when translating for parents, they may be less likely to exhibit depressive symptoms because they have more confidence in dealing with the situation and may use better coping strategies (Campbell-Sills et al., 2006). However, according to the differential-susceptibility theory, the personal attributes that characterize individual vulnerability to adversity may also apply in the case of beneficial experiences (Belsky & Pluess, 2009). In the current study, resilience may also relate to adolescent susceptibility to the benefits of efficacy during translating, such that less resilient adolescents would benefit more than their more resilient counterparts from having a sense of efficacy during translating.

The Current Study

Using a sample of Mexican American adolescents, the current study has two research goals (See Figure 1 for the conceptual model). First, we examine whether adolescents' resilience and sense of alienation from parents are associated with their feelings about language brokering. We propose that a) parent-child alienation will relate to higher adolescent sense of burden and lower adolescent sense of efficacy in translating (paths A1-A2); and b) adolescents' resilience will relate to their lower sense of burden and higher sense of efficacy in translating (paths A3-A4). Second, we examine whether adolescents' resilience and sense of alienation from parents moderate the links between adolescents' feelings about language brokering and depressive symptoms. We hypothesize that a) the main effects of adolescent sense of burden and efficacy, parent-child alienation, and adolescent resilience on depressive symptoms will be significant (paths A5-A8); and b) most importantly, adolescents with high parent-child alienation or low resilience will be more susceptible, in terms of their psychological adjustment, to the negative effects of feeling burdened during translating as well as the positive effects of feeling a sense of efficacy during translating.

Method

Participants

Participants in the current study are 557 adolescent language brokers (54.2% female) in Mexican-American families from a metropolitan city in central Texas. The adolescents' ages ranged from 11 to 15 years old (M=12.96, SD=.94). The majority of adolescents were born in the United States (N=420, 75.4%). The majority of the parents were born in Mexico (Fathers: N=268, 98.9%; Mothers: N=546, 99.3%). On average, fathers were 41 years old (SD= 6.67) and mothers were 38 years old (SD= 5.79). Median and mean family income was in the range of $20,001 to $30,000, with 89% of the families reporting an income lower than $50,001. For both fathers and mothers, the median education level was finished middle school and the mean education level was some middle school. Most of the fathers (87%) and mothers (74%) were employed at least part-time. Most of the parents' occupations were unskilled laborer (e.g., construction worker, truck driver, mover, and restaurant server).

Some of the participants (22%) also had a sibling who was a language broker (but who did not participate in the current study)

Procedure

Participants were recruited through public records, school presentations, and community recruitment in and around a large metropolitan city in central Texas from 2012 to 2014. Public records were obtained from local school districts. School administrators gave permission for a member of the research team to address students and distribute a letter describing the research project and a permission slip to be signed by a parent. Families that were reached through community recruitment were also given a letter and a permission slip. Families that returned the slip gave permission for future contact. An initial screening call was placed to these families, ensuring each family was qualified to participate in the study. In order to qualify, parents had to be of Mexican origin, parents had to have a child in middle school, and that child had to have the responsibility of translating for at least one of the parents in the study.

If a family met these qualifications, an acquaintance visit was scheduled to provide the family with comprehensive information about the project and procedures. Family consent (for parents) and assent (for children) were acquired at the acquaintance meeting if the family decided to participate in the project. In the formal interview, bilingual and bicultural interviewers read the questions aloud and entered the participant responses on a laptop computer. Each participating family was given compensation in the amount of $60. Questionnaires were prepared in both English and Spanish (first translated to Spanish and then back-translated to English). Both Spanish and English were presented together on the same questionnaires. All study materials and procedures were approved by the Institutional Review Board of the first author's university.

Measures

Adolescent depressive symptoms—Using the 20-item Center for Epidemiologic Studies of Depression Scale (Radloff, 1977), adolescents self-reported on levels of depressive symptoms during the past week on a scale of 1 (*Rarely or none of the time*) to 4 (*Most or all of the time*). Sample items included "I could not shake off the blues even with help from family or friends," and "I thought my life had been a failure." Higher mean scores reflect more depressive symptoms (α = .83).

Parent-child alienation—Adolescents' sense of alienation from parents was assessed using the 8-item *alienation* subscale of Armsden and Greenger's Inventory of Parent and Peer Attachment (Armsden & Greenberg, 1987). Adolescents reported their general sense of alienation from their parents on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*). Sample items included "I have to rely on myself when I have a problem to solve," and "My parents don't understand what I'm going through these days." Higher mean scores reflect a higher sense of alienation from parents (α = .78).

Adolescent resilience—Adolescent resilience was measured using three items from the Connor-Davidson Resilience Scale (Connor & Davidson, 2003): "I can deal with whatever

comes," "I tend to recover easily after an illness or hardship," and "I am not easily discouraged by failure." Adolescents reported on a scale of 1 (*Strongly disagree*) to 5 (*Strongly agree*), with higher scores reflecting a greater sense of resilience (α = .64). We applied confirmatory factor analysis to assess the psychometric properties of the scale. The model fit was perfect, because the model was just identified with only three items. The factor loadings ranged from .56 to .70, p = .000. To get an over-identified model to estimate the model fit, we included the outcome variable, depressive symptoms, in the model. This structural equation model showed excellent fit, $\chi^2(2)$ =1.563, p = ..458, CFI = 1.000, RMSEA = .000 [.000, .078], SRMR =.010.

Adolescent sense of burden during translating—Adolescents' sense of burden as a translator for parents was assessed by four items: "I become impatient when translating for my mother (or father)," "I feel desperation when translating for my mother (or father)," "I would rather do other things than translate," and "I have disappointed my mother (or father) by translating poorly." Adolescents reported for mothers and fathers separately on a scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*), with higher mean scores reflecting a higher sense of burden (α = .77 for father, α = .71 for mother). We applied confirmatory factor analysis to assess the psychometric properties of the scale. Sense of burden during translating for mother and father were tested simultaneously. Model fit was good, $\chi^2(15)$ =35.320, p = .002, CFI = .988, RMSEA = .049 [.028, .071], SRMR =.025. All of the items loaded well on the latent factor, for mother scale, λs = .426 to .755, p = .000, and for father scale, λs = .438 to .753, p = .000. Adolescents' reports on sense of burden during translating for mother and father were used as two indicators of a latent variable: sense of burden during translating for parents.

Adolescent sense of efficacy during translating—Adolescents' efficacy as a translator for parents was assessed by four items: three were adopted from Kim et al. (2014), including "I am good at translating for my mother (or father)," "I am skilled at translating for my mother (or father)," and "I am effective at translating for my mother (or father)," and one was created for the purpose of the current study: "I translate correctly for my mother (or father)." Adolescents reported for mothers and fathers separately on a scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*), with higher mean scores reflecting a higher sense of efficacy (α = .87 for father, α = .83 for mother). We conducted confirmatory factor analysis to assess the psychometric properties of the scale. Sense of efficacy during translating for mother and father were tested simultaneously. Model fit was good, $\chi^2(15)$ =26.692, p = .031, CFI = .995, RMSEA = .037 [.011, .060], SRMR =.020. All of the items loaded well on the latent factor, for mother scale, λs = .577 to .863, p = .000, and for father scale, λs = .662 to .862, p = .000. Adolescents' reports on sense of efficacy during translating for mother and father were used as two indicators of a latent variable: sense of efficacy during translating for parents.

Covariates—Several covariates were considered for the current study, including adolescent age, gender (0=boy, 1=girl), and nativity (0 = born in the U.S., 1= born in Mexico), family socioeconomic status (SES), adolescent frequency of translating for parents, and adolescent English and Spanish proficiency. Parents reported their highest level of education completed

on a scale ranging from 1 (*No formal schooling*) to 11 (*Finished graduate degree*). Parents reported on their family income before taxes during the past year using a scale divided into $10,000 increments, ranging from 0 (*$10,000 or under*) to 11 (*$110,001 or more*). Fathers' and mothers' reports of family income and educational level were used as four indicators of a latent variable: socioeconomic status. Adolescents reported, in general, how often they translate for their mother and father separately, on a scale ranging from 1 (*never*) to 6 (*daily*). Frequency of translating for mother and father were used as two indicators of a latent variable: frequency of translating for parents. Language proficiency was assessed by three corresponding items for English and Spanish: "How well do you speak and understand English (or Spanish)?,"; "How well do you read English (or Spanish)?,"; and "How well do you write English (or Spanish)?". Adolescents reported on a 5-point scale ranging from 1 (*not well*) to 5 (*extremely well*). Higher mean scores reflect better English or Spanish skills (α = .83 and .80 for English and Spanish, respectively).

Analyses Plan

All continuous variables were standardized before testing the conceptual model (see Figure 1). The conceptual model was tested under the structure equation modeling (SEM) framework using Mplus 7.31. Mplus uses the full information maximum likelihood (FIML) estimation method to handle missing data, which enables full usage of all available data (Muthén & Muthén, 1998 - 2016). Maximum likelihood estimation was used. First, a measurement model was tested. Second, to test the links among parent-child alienation or adolescent resilience, adolescent sense of burden or efficacy, and adolescent depressive symptoms, we tested a structural equation model involving all the A paths in the conceptual model. Third, the four hypothesized interaction effects (B paths in Figure 1) were tested one by one following the standard procedures recommended by Muthén and Muthén (1998 - 2016). As the interaction involved latent variables, random effects were estimated. The interaction product was created by multiplying a predictor and a moderator and was included in the model to predict adolescent depressive symptoms one at a time. When an interaction effect was significant, simple slope analyses (one standard deviation above and below the mean of the moderator) were conducted and the interaction plot was presented (Aiken & West, 1991).

Results

Descriptive Statistics

Table 1 displays descriptive statistics and bivariate correlations among study variables. Observation of the bivariate correlations provide preliminary evidence for our conceptual model. First, adolescents' sense of burden about translating for mothers and their sense of burden about translating for fathers are highly correlated (r=.72, p<.00). Similarly, there is a high degree of correlation in the association between adolescents' sense of efficacy about translating for mothers and fathers (r=.75, p<.00). Second, parent-child alienation was positively associated with adolescents' sense of burden and negatively associated with adolescents' sense of efficacy. Third, adolescent resilience was negatively related to adolescents' sense of burden and positively linked to adolescents' sense of efficacy. Fourth, adolescent depressive symptoms were positively correlated with parent-child alienation and

adolescent sense of burden, and negatively correlated with adolescent resilience and sense of efficacy.

Analyses of Structural Model

We first tested a measurement model with all the latent constructs: adolescent sense of burden and efficacy during translating for parents, adolescent frequency of translating for parents, and socioeconomic status. The model fit for the measurement model was good, $\chi^2(27) = 58.827$, $p = .000$, CFI=.972, RMSEA=.046 [.030, .062], SRMR=.041.

Then, we tested the structural model with all the A paths in Figure 1. In this model, adolescent age, gender, nativity, English proficiency, Spanish proficiency, and family socioeconomic status were included as covariates linking to adolescent sense of burden and efficacy and depressive symptoms. In addition, the frequency with which adolescents translated for parents was included as a covariate for adolescent depressive symptoms. The model fit for this model was good, $\chi^2(97) = 187.339$, $p = .000$, CFI=.947, RMSEA=.041 [.032, .050], SRMR=.049. Standardized path parameters are presented in Figure 2. Results are generally consistent with our hypotheses. For our first research question, about how parent-child alienation and adolescent resilience relate to adolescents' feelings about language brokering, we found that a) parent-child alienation was positively linked to adolescent sense of burden for translating (A1 Path in Figure 1) and negatively associated with adolescent sense of efficacy for translating (A2 Path), and b) adolescent resilience was not significantly related to adolescent sense of burden for translating (A3 Path), but was positively associated with adolescent sense of efficacy for translating (A4 Path). For our second research question, about the effects of language brokering feelings, parent-child alienation, and adolescent resilience on adolescent depressive symptoms, we first demonstrated the significant main effects of these predictors. We found that parent-child alienation (A6 Path) and adolescent sense of burden for translating (A5 Path) were positively linked to adolescent depressive symptoms; adolescent resilience (A7 Path) and adolescent sense of efficacy (A8 Path) were negatively linked to adolescent depressive symptoms. This pattern of results remained consistent when interaction terms were included in the structural model.

Moderating Relations

For our second research question, besides the main effects reported above, we also found four interaction effects on adolescent depressive symptoms. Unstandardized interaction coefficients are presented in Figure 2. First, there was a significant interaction between adolescents' sense of burden for translating and parent-child alienation, b=.150, SE=.037, p=.000. Specifically, as shown in Figure 3, adolescents' sense of burden for translating was more strongly associated with adolescent depressive symptoms when adolescent scores on parent-child alienation were high (vs. low). Second, there was a significant interaction between adolescents' sense of burden for translating and adolescent resilience, b=−.160, SE=.038, p=.000. Specifically, as shown in Figure 4, adolescents' sense of burden for translating was more strongly associated with adolescent depressive symptoms when adolescent resilience was low (vs. high). Third, there was a significant interaction between adolescents' sense of efficacy for translating and parent-child alienation, b=−.138, SE=.039, p=.000. Specifically, as shown in Figure 5, adolescents' sense of efficacy for translating was

more strongly associated with adolescent depressive symptoms when adolescent scores on parent-child alienation were high (vs. low). Fourth, there was a marginally significant interaction between adolescents' sense of efficacy for translating and adolescent resilience, b=.064, SE=.035, p=.066. Specifically, as shown in Figure 6, adolescents' sense of efficacy for translating was more strongly associated with adolescent depressive symptoms when adolescent resilience was low (vs. high).

Discussion

Language brokering experiences are prevalent among ethnic minorities, especially in immigrant families, and have significant yet mixed implications for youth development (Chao, 2006; McQuillan & Tse, 1995; Morales & Hanson, 2005). However, a limited number of studies have examined why language brokering experiences have varying implications for youth. The current study aimed to elucidate this question by adopting the bioecological model (Bronfenbrenner & Morris, 2006) and differential-susceptibility theory (Belsky & Pluess, 2009). Specifically, we examined two factors (parent-child alienation and adolescent resilience) that may relate to individual variations in feelings about language brokering and susceptibility to such feelings. Consistent with our hypotheses, there are two major findings. First, when parent-child alienation was high, adolescents experienced more burden and less efficacy in translating, and when adolescents were more resilient, they experienced more efficacy in translating. Second, in the context of high parent-child alienation or when adolescents were less resilient, adolescents were more susceptible, as measured by depressive symptoms, to the negative effects of feeling burdened and the positive effects of feeling efficacious when translating.

Explaining Variation in Feelings about Language Brokering

Language brokering is generally considered to be a challenging experience for children. It is a task that requires them to take on responsibilities that their non-language-broker counterparts would not (McQuillan & Tse, 1995; Morales & Hanson, 2005; Weisskirch, 2006, 2007). Our study suggests that individuals experience the demands of language brokering differently, depending on their parent-child relationship context and on their personal attributes, specifically how resilient they are.

First, we found that parent-child relationship context relates to how adolescents feel about their experiences of language brokering. Our finding that parent-child alienation was positively linked to adolescents' sense of burden when translating for their parents was in line with a prior study on Chinese American adolescents (Wu & Kim, 2009). However, unlike Wu and Kim, which showed no significant association between parent-child alienation and adolescents' efficacy in translating, the present study revealed a significant negative link between them. This discrepancy may be due to age and ethnicity differences in participants across the two studies. First, participants in our study (in middle school) were younger than participants in Wu and Kim's study (in high school). To experience efficacy in translating, younger adolescents may rely more on the support of parents (e.g., positive appraisals and emotional support) than do older adolescents. Lack of such parental support when adolescents feel a strong sense of alienation from parents may thus be more strongly

associated with a lower sense of efficacy for younger adolescents. Second, despite some similarities, Mexican and Chinese cultures vary in some aspects of family relationships (Fuligni, 1998; Hardway & Fuligni, 2006; Yau, Tasopoulos-Chan, & Smetana, 2009). For example, compared to their Mexican American counterparts, Chinese American adolescents disclose less to their mothers (Yau et al., 2009) and perceive a stronger obligation to provide future support to parents (Hardway & Fuligni, 2006). These variations in family relationships may underlie the different associations between parent-child alienation and adolescent sense of efficacy across these two cultures. Therefore, future studies are needed to examine whether and why age and ethnicity moderate the negative relation between adolescents' sense of alienation from parents and sense of efficacy when translating for parents.

Second, to our knowledge, the present study is the first to demonstrate that a personal attribute, resilience, is positively related to adolescent sense of efficacy in translating. Adolescent resilience also showed a negative bivariate correlation with adolescent sense of burden in translating, although this negative association became insignificant when covariates were included in the structural model. These results are in line with previous findings that resilient individuals tend to have less negative and more positive feelings, even in time of crisis (Fredrickson et al., 2003; Tugade, Fredrickson, & Feldman Barrett, 2004). Resilience has been positively related to task-oriented coping; that is, focusing on the problem and seeing how to solve it (Campbell-Sills et al., 2006). When resilient language brokers encounter difficult translation tasks, they may focus on how to complete the tasks and try their best to solve problems they meet. Therefore, during translating, they may build up their efficacy by completing challenging tasks. Future studies should examine whether coping styles can account for the association between resilience and adolescents' sense of efficacy during translating.

Moderating the Links between Feelings about Language Brokering and Adolescent Adjustment

Replicating previous findings (Kam & Lazarevic, 2014b; McQuillan & Tse, 1995; Trickett & Jones, 2007; Weisskirch, 2006), the present study demonstrated that feeling burdened during translating related to more depressive symptoms, whereas feeling a sense of efficacy during translating related to less depressive symptoms, even after controlling for frequency of translating, socioeconomic status, adolescent age, gender, nativity, and English and Spanish proficiency. Furthermore, the present study moved beyond prior work by demonstrating how parent-child alienation and adolescent resilience moderate the association between adolescents' psychological experiences of language brokering and depressive symptoms. In support of the differential-susceptibility theory (Belsky & Pluess, 2009), we found that adolescents with a strong sense of alienation from parents, and also those who are less resilient, are more susceptible both to the detrimental effects of feeling burdened and to the beneficial effects of feeling efficacious.

Adolescents' sense of alienation from parents intensified the effects of feelings about translating for parents on adolescent depressive symptoms. These results are in line with prior studies demonstrating the importance of the parent-child context in the association

between language brokering and adolescent outcomes (Hua & Costigan, 2012; Love & Buriel, 2007; Weisskirch, 2013). In a parent-child relationship with a high sense of alienation, parents tend not to display empathy, warmth, and support towards the child (Chao, 2001). In such a parent-child relationship context, adolescents may not have the parental support they need to overcome the sense of burden during translating; meanwhile, a sense of efficacy during translating is especially important to their psychological adjustment. Individuals' differential physiological stress reactivity under various contexts (Belsky & Pluess, 2009; Boyce & Ellis, 2005) may also be a potential underlying mechanism of the relation between parent-child alienation and susceptibility to the influence of language brokering. Future language brokering studies can include biological measures of stress reactivity to investigate such mechanisms.

So far as we know, this is the first study demonstrating that adolescents' resilience moderates the association between feelings about language brokering and depressive symptoms. First, we found that less resilient adolescents are more vulnerable to the effect of feeling burdened during translating, as measured by their depressive symptoms. This finding is in accordance with previous studies that have demonstrated less resilient individuals being more vulnerable to adversity, such as negative life events, mental or physical diseases, and natural disasters (Burrow-Sánchez et al., 2014; Fu et al., 2014; Peng et al., 2012). Going beyond these prior studies, most of which took a diathesis-stress perspective, the present study reveals that less resilient adolescents also tend to be more susceptible to the beneficial effects of efficacy in translating. Thus, resilience may be a personal attribute that not only helps determine individuals' susceptibility under diversity, but also under supportive conditions.

Taken together, the current study's findings suggest that parent-child alienation and adolescent resilience can account for not only the variations in adolescents' feelings about translating (i.e., sense of burden and efficacy), but also the individual differences in susceptibility to these feelings. Our findings indicate that improving language brokers' parent-child relationship quality and resilience is important for promoting their adjustment, because it may help them perceive language brokering experiences in a more positive way, and also because it may mitigate the negative psychological effects of feeling a sense of burden when translating. Thus, efforts should be made to develop culturally-grounded programs and community resources to improve parent-child relationship quality and to enhance adolescent resilience in Mexican American families. Some evidence-based programs focusing on promoting parent-child relationship quality (Durlak & Wells, 1997; Harachi, Catalano, & Hawkins, 1997) or fostering individual resilience (Cowen, Wyman, Work, & Iker, 1995; Loprinzi, Prasad, Schroeder, & Sood, 2011; Vetter et al., 2010) may be culturally adapted for such purposes. From another perspective, interventions aimed at reducing adolescents' sense of burden and boosting adolescents' sense of efficacy during language brokering may be especially beneficial for adolescents with a strong sense of alienation from parents or for those with low resilience. This implication is consistent with prior research that showed preventative interventions being most effective and beneficial for those most at risk (Brown & Liao, 1999).

From a broader perspective, we suggest that more intervention programs should target families with language brokers. This is partly because these families are usually immigrant families with lower socioeconomic status. For example, in our sample, median and mean family income was in the range of $20,001 to $30,000, and about 80% of families had an income lower than $40,000, much lower than the median household income (i.e., $53,657) in the United States in 2014 (DeNavas-Walt & Proctor, 2014). Moreover, language brokering is generally a challenging task for adolescents (Colby & Ortman, 2015; Kam & Lazarevic, 2014a; Morales & Hanson, 2005). Therefore, a greater effort from each contextual system of the bioecological model should be made to reduce the need for adolescents to translate for family members, and to help adolescent language brokers better manage language brokering tasks. For example, governmental agencies could fund professional translating services, and organizations could be encouraged to make interpretation services available and accessible for immigrant families who need help with language. Schools can also offer translating classes and training programs, in which language brokers can improve both their translating skills and their ability to manage their role as translators and interpreters. Furthermore, language brokering is an important aspect of family dynamics in immigrant families (Kam & Lazarevic, 2014a; Morales & Hanson, 2005). Any intervention program focusing on parenting and parent-child relationships in immigrant families should consider children's role as language brokers.

Limitations and Future Directions

Some limitations should be considered when evaluating the implications of the current findings. First, it should be acknowledged that all the measures in this study are self-reported, and thus may be subject to respondent bias. However, adolescents themselves may be the most reliable source when it comes to reporting on their own experiences and feelings (Chan, 2009; Wang & Kenny, 2014). Another potential limitation related to the measures is that we presented English and Spanish versions simultaneously without recording which language version the participants used, which prevented us from testing the psychometric properties of measures within the specific language groups. The third limitation is the cross-sectional and correlational nature of our research design. The existing literature led us to make hypotheses regarding the direction of the relations among study variables. However, any causal implications taken from our results should be applied with caution. Although experimental studies are required to determine the direction of causal relations, future studies using a longitudinal, rather than cross-sectional, design may provide better inferences about the direction of relations.

Fourth, the study sample was drawn from a metropolitan area in Texas, where Mexican Americans represent a large percentage of the population. Community characteristics such as ethnic concentration may influence individuals' acculturation experiences (White, Zeiders, Knight, Roosa, & Tein, 2014). Whether our results can be generalized to Mexican-Americans in areas with a low percentage of Latino individuals (e.g., the Midwest) requires future examination. Finally, the current study focused on one aspect of the parent-child relationship, which exhibited significant implications for adolescents' language brokering experiences and adjustment. Future studies can explore whether other aspects of the parent-

child relationship (e.g., parental support and communication) may also moderate the association between adolescents' language brokering experiences and adjustment.

In conclusion, the current study provided a more comprehensive understanding of the mixed implications of language brokering for adolescents by demonstrating factors that are related to variations in feelings about translating and in the links between these feelings and depressive symptoms. Adolescents with a strong sense of alienation from parents or with low resilience not only experienced more burden or less efficacy in translating, both of which related to more depressive symptoms, but they were also more susceptible to the influence of such feelings. These results indicate that it may be useful for interventions aimed at promoting language brokers' psychological adjustment to improve parent-child relationship quality and increase language brokers' resilience.

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References

Aiken, LS., West, SG. Multiple regression: Testing and interpreting interactions. Sage; Thousand Oaks, CA: 1991.

Allen JP, Porter M, McFarland C, McElhaney KB, Marsh P. The relation of attachment security to adolescents' paternal and peer relationships, depression, and externalizing behavior. Child Development. 2007; 78:1222–1239. doi: 10.1111/j.1467-8624.2007.01062.x. [PubMed: 17650135]

Armsden GC, Greenberg MT. The Inventory of Parent and Peer Attachment: Individual differences and their relationship to psychological well-being in adolescence. Journal of Youth and Adolescence. 1987; 16:427–454. doi: 10.1007/bf02202939. [PubMed: 24277469]

Belsky J, Pluess M. Beyond diathesis stress: Differential susceptibility to environmental influences. Psychological Bulletin. 2009; 135:885–908. doi: 10.1037/a0017376. [PubMed: 19883141]

Bleakley H, Chin A. Language skills and earnings: Evidence from childhood immigrants. Review of Economics and Statistics. 2004; 86:481–496. doi: 10.1162/003465304323031067.

Bogar CB, Hulse-Killacky D. Resiliency determinants and resiliency processes among female adult survivors of childhood sexual abuse. Journal of Counseling & Development. 2006; 84:318–327. doi: 10.1002/j.1556-6678.2006.tb00411.x.

Booth A, Johnson DR, Granger DA, Crouter AC, McHale S. Testosterone and child and adolescent adjustment: The moderating role of parent-child relationships. Developmental Psychology. 2003; 39:85–98. doi: 10.1037/0012-1649.39.1.85. [PubMed: 12518811]

Boyce WT, Ellis BJ. Biological sensitivity to context: I. An evolutionary–developmental theory of the origins and functions of stress reactivity. Development and Psychopathology. 2005; 17:271–301. doi: 10.1017/S0954579405050145. [PubMed: 16761546]

Bronfenbrenner, U., Morris, PA. The bioecological model of human development. In: Damon, W., Lerner, RM., editors. Handbook of child psychology. 6th. Wiley; Hoboken, NJ: 2006. p. 793-838.

Brown CH, Liao J. Principles for designing randomized preventive trials in mental health: An emerging developmental epidemiology paradigm. American Journal of Community Psychology. 1999; 27:673–710. doi: 10.1023/a:1022142021441. [PubMed: 10676544]

Burrow-Sánchez JJ, Corrales C, Jensen CO, Meyers K. Resilience in a sample of Mexican American adolescents with substance use disorders. Psychological Assessment. 2014; 26:1038–1043. doi: 10.1037/pas0000011. [PubMed: 24932645]

Campbell-Sills L, Cohan SL, Stein MB. Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. Behaviour Research and Therapy. 2006; 44:585–599. doi: 10.1016/j.brat.2005.05.001. [PubMed: 15998508]

Chan, D. So why ask me? Are self-report data really that bad?. In: Lance, CE., Vandenberg, RJ., editors. Statistical and methodological myths and urban legends: Doctrine, verity, and fable in the organizational and social sciences. Routledge; New York: 2009.

Chao RK. Extending research on the consequences of parenting style for Chinese Americans and European Americans. Child Development. 2001; 72:1832–1843. doi: 10.1111/1467-8624.00381. [PubMed: 11768148]

Chao, RK. The prevalence and consequences of adolescents' language brokering for their immigrant parents. In: Bornstein, MH., Cote, LR., editors. Acculturation and parent-child relationships: Measurement and development. Erlbaum; Mahwah, NJ: 2006. p. 271-296.

Colby SL, Ortman JM. Projections of the size and composition of the U.S. population: 2014 to 2060. Current Population Reports. 2015 Retrieved February 2, 2016, from https://www.census.gov/content/dam/Census/library/publications/2015/demo/p25-1143.pdf.

Connor KM, Davidson JRT. Development of a new resilience scale: The Connor-Davidson Resilience Scale (CD-RISC). Depression and Anxiety. 2003; 18:76–82. doi: 10.1002/da.10113. [PubMed: 12964174]

Cowen E, Wyman P, Work W, Iker M. A preventive intervention for enhancing resilience among highly stressed urban children. Journal of Primary Prevention. 1995; 15:247–260. doi: 10.1007/BF02197474. [PubMed: 24254528]

DeNavas-Walt C, Proctor BD. Income and poverty in the United States: 2014. Current Population Reports. 2014 Retrieved February 2, 2016, from https://www.census.gov/content/dam/Census/library/publications/2015/demo/p60-252.pdf.

Durlak J, Wells A. Primary prevention mental health programs for children and adolescents: A meta-analytic review. American Journal of Community Psychology. 1997; 25:115–152. doi: 10.1023/A:1024654026646. [PubMed: 9226860]

Fredrickson BL, Tugade MM, Waugh CE, Larkin GR. What good are positive emotions in crisis? A prospective study of resilience and emotions following the terrorist attacks on the United States on September 11th, 2001. Journal of Personality and Social Psychology. 2003; 84:365–376. doi: 10.1037/0022-3514.84.2.365. [PubMed: 12585810]

Fu C, Leoutsakos J-M, Underwood C. An examination of resilience cross-culturally in child and adolescent survivors of the 2008 China earthquake using the Connor–Davidson Resilience Scale (CD-RISC). Journal of Affective Disorders. 2014; 155:149–153. doi: 10.1016/j.jad.2013.10.041. [PubMed: 24215898]

Fuligni AJ. Authority, autonomy, and parent–adolescent conflict and cohesion: A study of adolescents from Mexican, Chinese, Filipino, and European backgrounds. Developmental Psychology. 1998; 34:782–792. doi: 10.1037/0012-1649.34.4.782. [PubMed: 9681270]

Gambino CP, Acosta YD, Grieco EM. English-speaking ability of the foreign-born population in the United States: 2012. American Community Survey Reports. 2014 Retrieved February 2, 2016, from https://www.census.gov/content/dam/Census/library/publications/2014/acs/acs-26.pdf.

Grieco EM, Acosta YD, de la Cruz GP, Gambino C, Gryn T, Larsen LJ, Walters NP. The foreign-born population in the United States: 2010. American Community Survey Reports. 2012 Retrieved February 2, 2016, from https://www.census.gov/prod/2012pubs/acs-19.pdf.

Harachi T, Catalano R, Hawkins JD. Effective recruitment for parenting programs within ethnic minority communities. Child and Adolescent Social Work Journal. 1997; 14:23–39. doi: 10.1023/A:1024540829739.

Hardway C, Fuligni AJ. Dimensions of family connectedness among adolescents with mexican, chinese, and european backgrounds. Developmental Psychology. 2006; 42:1246–1258. doi: 10.1037/0012-1649.42.6.1246. [PubMed: 17087556]

Hua J, Costigan C. The familial context of adolescent language brokering within immigrant Chinese families in Canada. Journal of Youth and Adolescence. 2012; 41:894–906. doi: 10.1007/s10964-011-9682-2. [PubMed: 21681583]

Kam, JA., Lazarevic, V. Communicating for one's family: An interdisciplinary review of language and cultural brokering in immigrant families. In: Cohen, EL., editor. Communication Yearbook. Vol. 38. Routledge; New York: 2014a. p. 3-38.

Kam JA, Lazarevic V. The stressful (and not so stressful) nature of language brokering: identifying when brokering functions as a cultural stressor for Latino immigrant children in early adolescence. Journal of Youth and Adolescence. 2014b; 43:1994–2011. doi: 10.1007/s10964-013-0061-z. [PubMed: 24241786]

Kim SY, Chen Q, Wang Y, Shen Y, Orozco-Lapray D. Longitudinal linkages among parent–child acculturation discrepancy, parenting, parent–child sense of alienation, and adolescent adjustment in Chinese immigrant families. Developmental Psychology. 2013; 49:900–912. doi: 10.1037/a0029169. [PubMed: 22799587]

Kim SY, Wang Y, Weaver SR, Shen Y, Wu-Seibold N, Liu CH. Measurement equivalence of the language-brokering scale for Chinese American adolescents and their parents. Journal of Family Psychology. 2014; 28:180–192. doi: 10.1037/a0036030. [PubMed: 24588602]

Loprinzi CE, Prasad K, Schroeder DR, Sood A. Stress Management and Resilience Training (SMART) program to decrease stress and enhance resilience among breast cancer survivors: A pilot randomized clinical trial. Clinical Breast Cancer. 2011; 11:364–368. doi: 10.1016/j.clbc.2011.06.008. [PubMed: 21831722]

Love JA, Buriel R. Language brokering, autonomy, parent-child bonding, biculturalism, and depression: A study of Mexican American adolescents from immigrant families. Hispanic Journal of Behavioral Sciences. 2007; 29:472–491. doi: 10.1177/0739986307307229.

Luthar SS, Cicchetti D, Becker B. The construct of resilience: A critical evaluation and guidelines for future work. Child Development. 2000; 71:543–562. doi: 10.1111/1467-8624.00164. [PubMed: 10953923]

McQuillan J, Tse L. Child language brokering in linguistic minority communities: Effects on cultural interaction, cognition, and literacy. Language and Education. 1995; 9:195–215. doi: 10.1080/09500789509541413.

Morales A, Hanson WE. Language brokering: An integrative review of the literature. Hispanic Journal of Behavioral Sciences. 2005; 27:471–503. doi: 10.1177/0739986305281333.

Muthén, LK., Muthén, BO. Mplus user's guide. 7th. Muthén & Muthén; Los Angeles, CA: 1998 - 2016.

Peng L, Zhang J, Li M, Li P, Zhang Y, Zuo X, Xu Y. Negative life events and mental health of Chinese medical students: The effect of resilience, personality and social support. Psychiatry Research. 2012; 196:138–141. doi: 10.1016/j.psychres.2011.12.006. [PubMed: 22405636]

Radloff LS. The CES-D Scale: A self-report depression scale for research in the general population. Applied Psychological Measurement. 1977; 1:385–401. doi: 10.1177/014662167700100306.

Roche K, Lambert S, Ghazarian S, Little T. Adolescent language brokering in diverse contexts: Associations with parenting and parent–youth relationships in a new immigrant destination area. Journal of Youth and Adolescence. 2015; 44:77–89. doi: 10.1007/s10964-014-0154-3. [PubMed: 25056805]

Schofield TJ, Parke RD, Kim Y, Coltrane S. Bridging the acculturation gap: Parent-child relationship quality as a moderator in Mexican American families. Developmental Psychology. 2008; 44:1190–1194. doi: 10.1037/a0012529. [PubMed: 18605845]

Shen Y, Kim SY, Wang Y, Chao RK. Language brokering and adjustment among Chinese and Korean American adolescents: A moderated mediation model of perceived maternal sacrifice, respect for the mother, and mother–child open communication. Asian American Journal of Psychology. 2014; 5:86–95. doi: 10.1037/a0035203. [PubMed: 25419443]

Trickett EJ, Jones CJ. Adolescent culture brokering and family functioning: A study of families from Vietnam. Cultural Diversity and Ethnic Minority Psychology. 2007; 13:143–150. doi: 10.1037/1099-9809.13.2.143. [PubMed: 17500603]

Tse L. Language brokering in linguistic minority communities: The case of Chinese- and Vietnamese-American students. Bilingual Research Journal. 1996; 20:485–498. doi: 10.1080/15235882.1996.10668640.

Tugade MM, Fredrickson BL, Feldman Barrett L. Psychological resilience and positive emotional granularity: Examining the benefits of positive emotions on coping and health. Journal of Personality. 2004; 72:1161–1190. doi: 10.1111/j.1467-6494.2004.00294.x. [PubMed: 15509280]

Vetter S, Dulaev I, Mueller M, Henley R, Gallo W, Kanukova Z. Impact of resilience enhancing programs on youth surviving the Beslan school siege. Child and Adolescent Psychiatry and Mental Health. 2010; 4:1–11. doi: 10.1186/1753-2000-4-11. [PubMed: 20051130]

Wang MT, Kenny S. Longitudinal links between fathers' and mothers' harsh verbal discipline and adolescents' conduct problems and depressive symptoms. Child Development. 2014; 85:908–923. doi: 10.1111/cdev.12143. [PubMed: 24001259]

Weisskirch RS. Emotional aspects of language brokering among Mexican American adults. Journal of Multilingual and Multicultural Development. 2006; 27:332–343. doi: 10.2167/jmmd421.1.

Weisskirch RS. Feelings about language brokering and family relations among Mexican American early adolescents. The Journal of Early Adolescence. 2007; 27:545–561. doi: 10.1177/0272431607302935.

Weisskirch RS. Family relationships, self-esteem, and self-efficacy among language brokering Mexican American emerging adults. Journal of Child and Family Studies. 2013; 22:1147–1155. doi: 10.1007/s10826-012-9678-x.

White RB, Zeiders K, Knight G, Roosa M, Tein J-Y. Mexican origin youths' trajectories of perceived peer discrimination from middle childhood to adolescence: Variation by neighborhood ethnic concentration. Journal of Youth and Adolescence. 2014; 43:1700–1714. doi: 10.1007/s10964-014-0098-7. [PubMed: 24488094]

Wu NH, Kim SY. Chinese American adolescents' perceptions of the language brokering experience as a sense of burden and sense of efficacy. Journal of Youth and Adolescence. 2009; 38:703–718. doi: 10.1007/s10964-008-9379-3. [PubMed: 19636765]

Yau JP, Tasopoulos-Chan M, Smetana JG. Disclosure to parents about everyday activities among American adolescents from Mexican, Chinese, and European backgrounds. Child Development. 2009; 80:1481–1498. doi: 10.1111/j.1467-8624.2009.01346.x. [PubMed: 19765013]

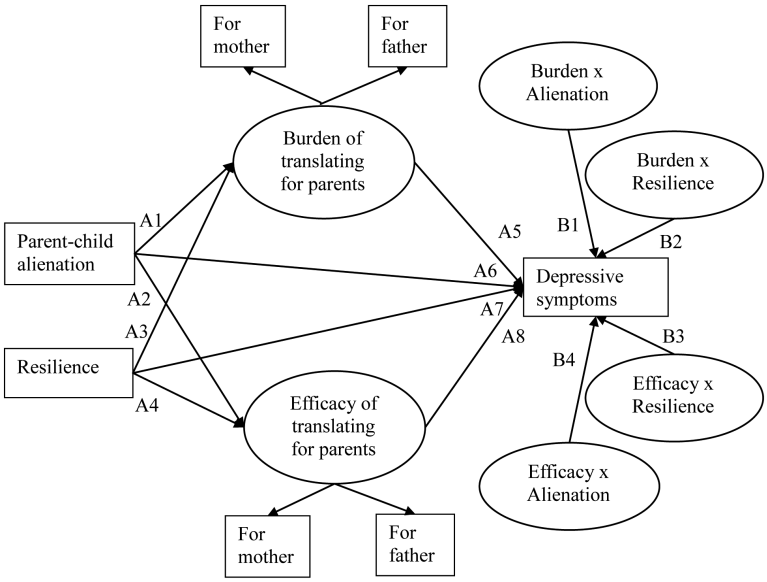

Figure 1.

Conceptual model linking parent-child alienation, adolescent resilience, adolescents' sense of burden/efficacy when translating for parents, and adolescent depressive symptoms. A Paths are links between study variables; B Paths represent interaction effects–for example, B1 represents the interaction effect between parent-child sense of alienation and adolescents' sense of burden on adolescent depressive symptoms.

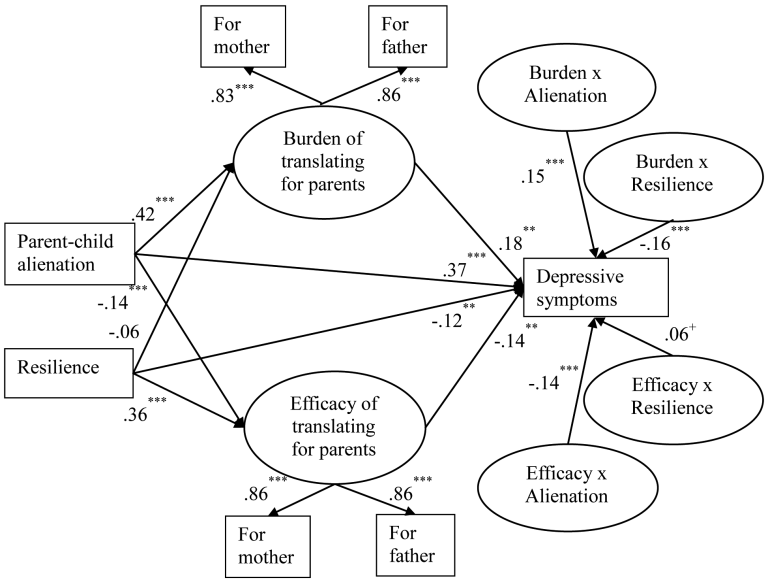

Figure 2.

Results for relations among the study variables: Parent-child sense of alienation, adolescent resilience, sense of burden/efficacy while translating, and depressive symptoms. *Note*: $^{+}$ $p<.10$, * $p<.05$, ** $p<.01$, *** $p<.001$. Parameters for interaction effects are unstandardized. Other parameters are standardized.

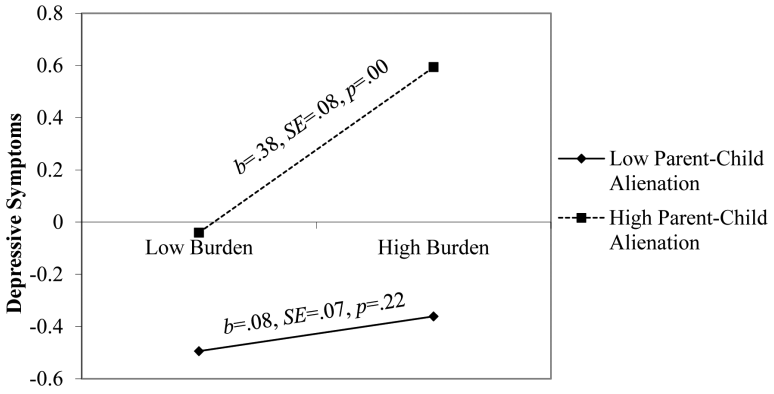

Figure 3.

Interaction effect between adolescents' sense of burden while translating and parent-child sense of alienation on their depressive symptoms. When parent-child sense of alienation is higher, the association between adolescents' sense of burden while translating and adolescent depressive symptoms is stronger.

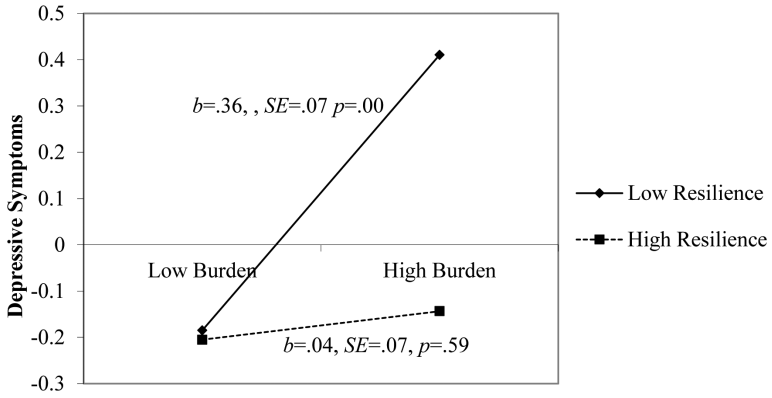

Figure 4.

Interaction effect between adolescents' sense of burden while translating and adolescents' resilience on their depressive symptoms. When adolescents' resilience is lower, the association between adolescents' sense of burden while translating and adolescent depressive symptoms is stronger.

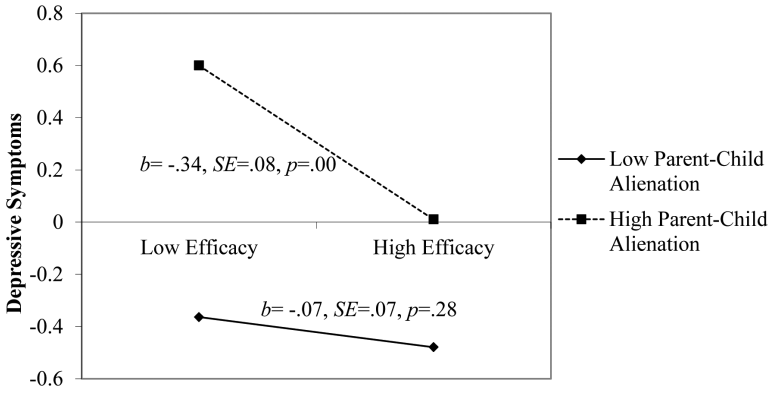

Figure 5.

Interaction effect between adolescents' sense of efficacy while translating and parent-child sense of alienation on adolescent depressive symptoms. When parent-child alienation is higher, the association between adolescents' sense of efficacy while translating and adolescent depressive symptoms is stronger.

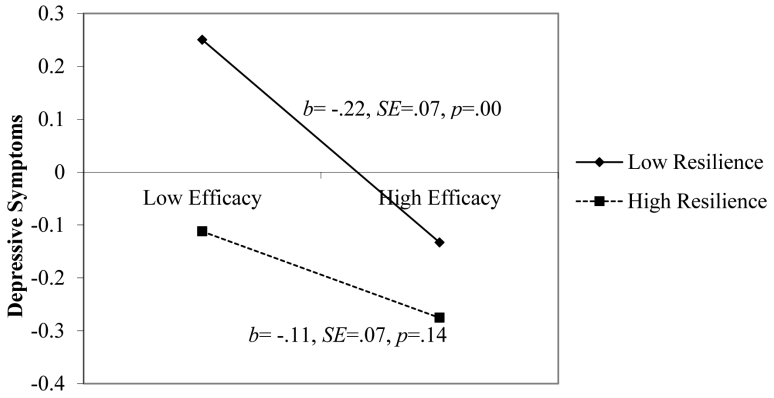

Figure 6.

Interaction effect between adolescents' sense of efficacy while translating and adolescents' resilience on their depressive symptoms. When adolescents' resilience is lower, the association between adolescents' sense of efficacy while translating and adolescent depressive symptoms is stronger.

Table 1

Zero-Order Correlations, Means, and Standard Deviations Among Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Burd (M)	—																	
2. Burd (F)	.72***	—																
3. Effi (M)	−.34***	−.31***	—															
4. Effi (F)	−.33***	−.21***	.75***	—														
5. Alie	.36***	.41***	−.21***	−.24***	—													
6. Resi	−.14***	−.16***	.40***	.37***	−.23***	—												
7. Depr	.34***	.38***	−.32***	−.32***	.52***	−.31***	—											
8. Freq (M)	−.05	−.08	.15***	.12**	.04	.05	.05	—										
9. Freq (F)	−.08	−.02	.13**	.21***	.00	.05	−.01	.43***	—									
10. Inco (M)	−.04	.00	.04	.05	.03	.00	−.07	−.04	.05	—								
11. Inco (F)	.03	−.05	.06	−.07	−.03	.04	−.10	.01	−.19**	.54***	—							
12. Educ (M)	−.01	.01	.05	.04	.02	−.04	.05	−.04	−.10*	.13**	.29***	—						
13. Educ (F)	.05	.04	.08	.02	.02	.03	.06	−.06	−.21***	.20**	.24***	.48***	—					
14. Age	.06	.108*	−.05	−.01	.04	.04	−.08	.03	.06	.06	.03	−.08*	−.01	—				
15. Gender	.13**	.11*	−.13**	−.19***	.08	−.09*	.07	.07	−.01	−.01	−.02	−.01	−.08	−.04	—			
16. Nativity	.05	.07	.03	.06	.02	.01	.06	.03	.05	−.03	−.08	.02	.13*	.21***	−.03	—		
17. English	−.10*	−.12**	.25***	.25***	−.03	.17***	−.12**	.04	.01	.09	.12	.09*	.12	−.07	−.04	−.09*	—	
18. Spanish	−.16***	−.14**	.32***	.26***	−.11**	.18***	−.19***	.17***	.08	.04	−.02	.00	.01	−.01	−.04	.07	.09*	—
Mean	2.47	2.40	3.42	3.39	2.47	3.51	1.56	4.66	3.94	2.18	2.70	4.79	4.62	12.45	.54	.25	4.21	3.57
SD	.73	.75	.72	.76	.62	.64	.39	1.14	1.51	1.51	1.72	2.21	2.30	.99	.50	.43	.68	.86
N	555	485	555	485	557	557	557	556	514	455	254	547	271	557	557	557	557	557

Note. *N* = number of valid cases. F=Father, M=Mother, Burd=Burden, Effi=Efficacy, Alie=Alienation, Resi=Resilience, Depr=Depressive symptoms, Freq=Frequency, Inco=Income, Educ=Education.

* $p<.05$,

** $p<.01$,

***$p < .001$.