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TESTING AN ECOLOGICAL MODEL OF ACCULTURATION:
THE ROLE OF CULTURAL FIT, COMPETENCE AND BELONGINGNESS
AS LINKS TO THE ACCULTURATION AND ADJUSTMENT
OF VIETNAMESE AND MEXICAN ADOLESCENTS

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TESTING AN ECOLOGICAL MODEL OF ACCULTURATION: THE ROLE OF CULTURAL FIT, COMPETENCE AND BELONGINGNESS AS LINKS TO THE ACCULTURATION AND ADJUSTMENT OF VIETNAMESE AND MEXICAN ADOLESCENTS

By

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ABSTRACT

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The purpose of this study was to evaluate an ecological model delineating the acculturative factors and mechanisms that influence the adjustment of minority youth. More specifically, this study examined the extent to which indices of contextual perceptions, cultural fit, cultural competence, and cultural belongingness influence the links between acculturation and adjustment among 164 Vietnamese and 332 Mexican adolescents. Altogether, 496 students (ages 11-20) were recruited throughout 7 junior-high and high schools in the Lansing community (Lansing, MI). Students were given questionnaires in a group-format, and based on their self-reports, results indicated that:

- There were significant group differences in adjustment and cultural fit. Compared to their Mexican peers, Vietnamese students fared better in their relations with teachers, in their disposition to delinquency, and in several indices of academic functioning (i.e., school GPA, math scores, academic aspirations, and time spent on homework). In contrast, Mexican students fared better in personal (i.e., depression, symptomatology, self-esteem, and life-satisfaction) and interpersonal domains of adjustment (i.e., family and peer relationships). Additionally, Mexican students reported fewer experiences of discrimination and a greater sense of cultural fit with their context.

- There were significant links between acculturation and adjustment for both ethnic groups. Students who were more involved in the U.S. culture (IUS) were more adjusted overall—across personal (i.e., self-esteem, life-satisfaction, disposition to delinquency), interpersonal (i.e., family, peer, and teacher relations), and academic domains of adjustment (i.e., school GPA, reading scores and academic aspirations). In contrast, students who were more involved in the ethnic culture (IEC) reported more mixed functioning. They fared better in terms of family relationships and academic aspirations but worse, in terms of depression, symptomatology, and math and reading scores.

- Acculturation was positively linked to one's sense of cultural competence and belongingness, such that: IEC was linked to a greater sense of ethnic competence and belongingness, and IUS was linked to greater U.S. competence and belongingness.

- Cultural fit was positively linked to adjustment, cultural competence, and cultural belongingness. Moreover, it was a significant mediator to numerous relationships between acculturation and adjustment, particularly IUS and adjustment.

- Finally, youth's perceptions of the prevalence of U.S. resources and climate in their contexts significantly moderated links between cultural fit and: acculturation, cultural competence, and cultural belongingness.

In sum, these findings demonstrated support for the ecological model; implications for the model were discussed, particularly with regard to the acculturation literature. The need to examine universal processes that transcend and link the experiences of all minority youth as well as the need to consider unique/specific concerns of Mexican and Vietnamese groups were also discussed.

For all the underdogs who struggle and triumph…

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CHAPTER 1: INTRODUCTION

I. SPECIFIC AIMS

Broad, long-term objectives:

This research focused on the acculturation and adjustment of minority youth. What happens to minority youth growing up in our increasingly diverse society? How do they navigate between the many cultures of home, school, and peers, and more importantly, what implications does this "navigation" have on their overall functioning? Since the concept of acculturation (i.e., cultural involvements) is central to many of these questions, this study is devoted to the area of acculturation and adjustment. Long-term goals of this research are: (1) to learn more about the factors and mechanisms that influence the adjustment of minority youth and their families, particularly as these mechanisms relate to acculturation and (2) to use this knowledge in a way that would serve minority populations, in terms of increasing a basic understanding and in terms of designing more effective interventions and institutional policies and services overall.

Specific Research Proposed:

The main purpose of this dissertation was to evaluate a theoretical model of how certain cultural factors and mechanisms influence the psychosocial functioning of minority adolescents. More specifically, this study examined how contextual factors and indices of cultural fit, cultural competence, and cultural belongingness influence the links between acculturation and adjustment in Vietnamese and Mexican youth.

Theoretical/Ecological Model of Acculturation and Adjustment—An Overview. Bronfrenbrenner (1979, 1989) and Lerner (1993, 1982) noted that "nothing happens in a vacuum". Therefore, to fully understand the adolescent's well-being, it is essential to

acknowledge the different contexts in which s/he is embedded. The following theory is based on an ecological model that incorporates the acculturation process into the national, state, city, and immediate contexts of Vietnamese and Mexican adolescents. The purpose of this model is to outline indices and interrelationships leading to adjustment. See Figures 1-3 for visual depictions of the narrative that follows.

Adolescents today are embedded in many different contexts, in essence, many different systems. The outermost context or "macrosystem" (for our focus) is the United States. Minority adolescents here live in a nation where diversity is increasingly salient. The process and product of such diversity are exemplified—not only in the changing demographics of recent years (U.S. Census Bureau, 1999) but also in everyday events: in events such as the coming of the Cuban refugees and the cataclysm of ethnic riots; in events such as the cacophony of the KKK demonstrations and in events such as the controversial questions of affirmative action. Though tangential as they may seem, in reality, these events are pervasively pertinent to the study, for they depict a climate in which the adjustment of minority adolescents is embedded. Such events speak of the salience and sensitivity (or insensitivity) to multicultural issues; they speak of the powerfully prejudicial behaviors, the lack of understanding among ethnic groups, and the ensuing political and programmatic implications—all of which may directly and indirectly affect one's psychosocial functioning.

Embedded within the culturally pluralistic macrosystem of the United States are smaller systems and subsystems: that of the State (e.g., Michigan), that of the city (e.g., Lansing), and finally, that of the adolescents' familial, school, and peer contexts (See Figure 1). Embedded within this hierarchy of systems is the individual with all

his/her personal characteristics—e.g., intelligence, attitudes, temperaments, talents, height, weight, attractiveness, etc.

Connecting to or superimposed on the adolescent and his/her numerous systems is the process of acculturation, which, in brief, is defined as the process of change and adaptation that results from continuous contact between those of different cultures (Redfield, Linton, & Herskovitch, 1936; Berry, 1991). The concept of acculturation is significant here because it provides a connection between individual and society. It helps to explicate our understanding of how exposure to new and different and diverse sociocultural environments can influence (and be influenced by) psychological changes within the person. In this study, acculturation is measured according to two dimensions or involvements: involvement in the ethnic culture and in the American culture. Both involvements are operationalized in terms of behaviors, values, and attitudes. Its resultant acculturation "styles" (i.e., assimilation, integration, marginalization, and separation) are derived from various combinations of these dimensions; in essence, they are cognitive shorthands for the levels of involvement.

Regardless of the various terms—be they with acculturation styles, or levels of involvements—it seems that the issues central to the relationships between acculturation and adjustment are: (a) one's cultural competence and (b) one's cultural belongingness (See Figure 2). Here, cultural competence refers to an individual's ability to function or navigate skillfully in the world/s in which s/he participates. It requires functional knowledge of the language, traditions, expectations, and demands salient in the individual's particular contexts. Cultural belongingness, on the other hand, is the sense of relationship with those in his/her particular contexts. It refers to a sense of attachment, a

connection to those in the same culture. Levels of involvement are essentially links to these issues, and these issues, in turn, are predictors of psychosocial functioning. In other words, individuals who are more involved in the Vietnamese culture (for example) may be more competent in a Vietnamese context and more connected to fellow Vietnamese people, and consequently, more adjusted than those less involved.

It must be noted, however, that these concepts (cultural competence and cultural connection) are contextually contingent. That is, they vary with contexts. (Hence, the term, *ecological*.) For example, the definition of "cultural competence" in Lansing, Michigan may differ drastically from its definition in Orange County, California, where enclaves such as "Little Saigon" enable Vietnamese individuals to live functionally for years without uttering a word of English. Similarly, one's ability to form attachments to those in the Vietnamese culture (as indicated by high Vietnamese involvements) may be difficult or impossible when living in a predominantly Western neighborhood. Thus, it is not the culture itself but rather, the "fit" between the individual and his/her environment that facilitates or impedes adjustment. More precisely, it is the fit between the individual's cultural competence and connection *and* the demands and opportunities in his immediate environments that facilitate psychological functioning. In other words, monocultural individuals living in a daily, bicultural context (or in a different monocultural context) may have psychosocial problems because of their inability to function or relate to those in their immediate worlds.

In sum, the ecological model holds that an individual's acculturation and adjustment is best conceptualized in a set of contexts, because it is such contexts that influence the nature of acculturation-adjustment relationships. Acculturation is a

Figure 1: The Contexts of Adolescents

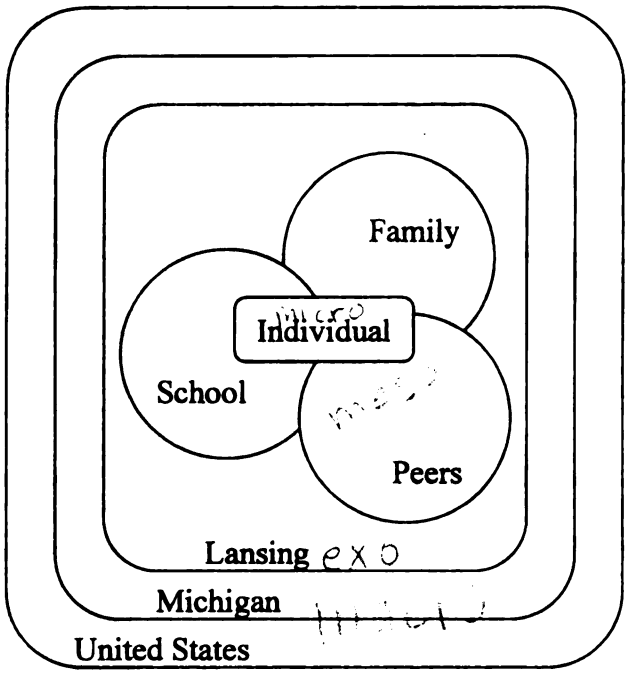


Figure 2: Mechanisms of Acculturation

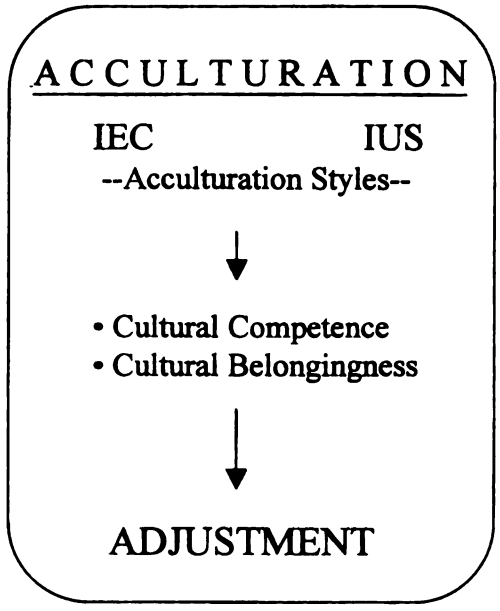
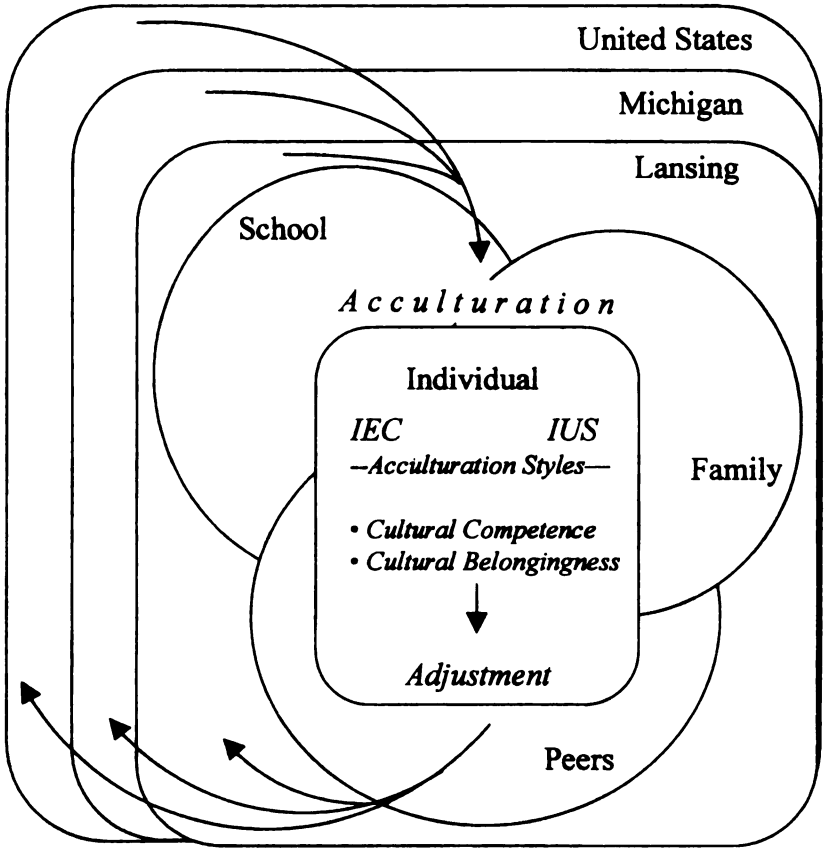


Figure 3: The Full Ecological Model



process that connects the individual with his/her contexts. Its "levels" of involvement are links to one's cultural competence and connection, which, in conjunction with the demands and resources of the particular contexts—(i.e., together, they form "cultural fit")—is speculated to be important links to one's overall functioning. And, as a final note: the functioning of an individual can influence the different contexts, just as the different contexts can influence the functioning of an individual. That is, implications of one's functioning may be more than just "individual." The functioning of an individual can also implicate those in the family, school, and societal contexts—as evidenced by intergenerational conflicts (e.g., Charron & Ness, 1981; Szapocznik & Kurtines, 1980, 1983; Rick & Forward, 1992), by drug use, delinquency and disruption from school (e.g., Vega, Gil, Warheit & Zimmerman, 1993, Szapocznik & Truss, 1978, Szalay, Canino & Vilov, 1993, Brook, Whiteman, Balka, Win, Gursen, 1997), and thefts and interpersonal violence in society (Sommers, 1993). This is important because, again, it suggests the interaction between individual and context. (See Figure 3.)

Specific Pathways/Hypotheses: Because the theoretical model has many fluid and interactive processes, it would be difficult to measure it as it is described above. It seems then, that the next step would be to recast the model into unidirectional pathways so that the mechanisms can be examined more empirically. Hence, the hypotheses in this study centered on the core components of the model, focusing specifically on acculturation, cultural fit, cultural competence, cultural belongingness, contextual perceptions, and psychosocial adjustment.

Using these indices, this study evaluated one main path (in two different ways): one assessed just cultural fit and the other, cultural fit with competence and

belongingness. (See Path 1 and 2.) Although not depicted here, this study also examined how perceptions of the community context moderated relationships in Paths 1 and 2.

Path 1:	cultural involvement (acculturation)	→	cultural fit	→	adjustment		
Path 2:	cultural involvement	→	competence belongingness	→	cultural fit	→	adjustment

The two paths were tested using Mexican and Vietnamese adolescents. The inclusion of these two groups was not to compare cross-cultural adjustment *per se*, but rather, to test the integrity of the theoretical model as it is reflected in the different groups. The Mexican group has more established ethnic resources and enclaves in the Lansing community than do their Vietnamese counterparts. (See pg. 30 for a discussion of their sociocultural backgrounds.) Hence, these two groups were chosen, specifically, because of the contrasts in their contextual resources and potentially, the contrast in cultural fit. Such contrasts offered a variability that would allow us to test the model more fully—both within and between groups.

In sum, the purpose of this research was to evaluate factors and mechanism influencing the "fit" (between individual and community) that facilitates or impedes one's functioning. Applying the specific pathways to Vietnamese and Mexican adolescents, it was hypothesized that the same overall structure would exist for both groups. However, it was also expected that involvement in the Mexican culture (and thus, the sense of ethnic competence and belongingness) would have stronger links with adjustment than would involvement in the Vietnamese culture. Altogether, these ideas can be delineated in three sets of hypotheses:

HYPOTHESES

1. Group Differences in Adjustment and Fit: The first set of hypotheses compared ethnic-group differences in cultural fit, discrimination, and adjustment indices.

    a. More precisely, it was predicted that the Mexican group would report higher levels of cultural fit than the Vietnamese group. This prediction was based primarily on the contextual differences in ethnic resources in the Lansing community. As a group, the Mexicans have more ethnic density, more established enclaves, and more ethnic agencies and resources than their Vietnamese neighbors (see pg. 30). It would seem likely then that the Mexicans would experience more cultural fit in Lansing.

    b. Despite the greater amount of resources, however, it was also predicted that the Mexican group would report more perceptions and experiences of racial discrimination than Vietnamese peers. This expectation was based on the speculation, that in the predominantly Anglo-American contexts of Lansing, the stereotypes for Mexicans tend to be more negative than they are for Vietnamese people. It would seem likely, then, that Mexican youth would perceive and/or experience more discrimination than Vietnamese peers.

    c. Because the Mexican group was speculated to have higher levels of cultural fit, it was also predicted that they would have higher levels of personal (i.e., depression, clinical symptomatology, self-esteem, life-satisfaction, disposition to delinquency) and interpersonal adjustment (i.e., family and peer relations) than their Vietnamese peers.

    d. Because the Vietnamese culture is traditionally, very academically-oriented, it was predicted that the Vietnamese youth would score better in terms of academic adjustment (i.e., school GPA, math scores, reading scores, academic aspirations, time spent on homework) and in terms of quality of relations with teachers than would Mexican students.

2. Acculturation, Cultural Fit, and Adjustment: The second set of hypotheses examined how acculturation and cultural fit related to adjustment and furthermore, how cultural fit mediated links between acculturation and adjustment. (Incidentally, these predictions were based on the assumption/fact that the Lansing and school contexts were predominantly "Anglo-American" and that the family context was somewhat ethnic.) Overall, it was predicted that:

    a. Consistent with previous research (Nguyen, et al., 1999), Involvement in the U.S. culture (IUS) would be related to positive adjustment overall —i.e., positively related to personal (i.e., depression, symptomatology, self-esteem, life-satisfaction, and disposition to delinquency), interpersonal (i.e., family, peer, and teacher relations) and academic adjustment (i.e., school GPA, math and reading scores).

b. Also consistent with previous research (Nguyen et al., 1999), Involvement in the ethnic cultures (IEC) would be related to adjustment in a mixed fashion —i.e., negatively related to personal adjustment (i.e., lower self-esteem and higher depression and symptomatology), positively related to quality of family and peer relations, negatively related to quality of teacher relations, and not related to academic adjustment (i.e., school GPA and math and reading scores).

c. The particular ethnic group (Vietnamese vs. Mexican) will moderate relationships between IEC (involvement in ethnic culture—Mexican and Vietnamese involvements combined) and adjustment such that IEC will be linked to more positive personal adjustment (i.e., higher self-esteem and life-satisfaction and lower depression and symptomatology) and less positive family relations for the Mexican group. (No predictions were made concerning the other indices of interpersonal and academic adjustment since they were speculated to be differentially influenced by different subcontexts. Exploratory analyses were conducted in this regard.)

d. Cultural fit will mediate relationships between acculturation and adjustment such that links between IUS and adjustment and IEC and adjustment will be attenuated when indices of cultural fit are entered into the regression.

e. Cultural fit will be related to more positive adjustment overall. Specifically, higher scores on cultural fit will be linked to higher personal (i.e., depression, symptomatology, self-esteem, life-satisfaction, and disposition to delinquency), interpersonal (i.e., family, peer, and teacher relations) and academic adjustment (i.e., school GPA, math scores, reading scores, and academic aspirations).

3. Competence, Belongingness, and Contextual Perceptions: The third set of hypotheses examined the extent to which acculturation is linked to cultural competence and belongingness. It also examined the extent to which perceptions of contextual resources (for the U.S. culture) moderated relationships between: acculturation and cultural fit, competence and cultural fit, and belongingness and cultural fit.

   a. Youths' involvement in their ethnic culture (IEC) would be positively related to their overall sense of ethnic competence and belongingness.

   b. Similarly, youths' involvement in the American culture (IUS) would be positively linked to their overall sense of U.S. competence and belongingness.

   c. Furthermore, IUS, U.S. competence, and U.S. belongingness would be positively related to cultural fit, while IEC, ethnic competence and ethnic belongingness would be negatively related to cultural fit.

d. Relationships between acculturation and cultural fit will be moderated by youths' perceptions of the prevalence of U.S. resources in their daily contexts.

- For students who believed that the resources and climate in their context were predominantly geared toward the U.S. culture (high U.S. contextual-perceptions), IUS would be positively related to cultural fit, and IEC would be negatively related.

- Conversely, for those who believed that their daily contexts were not very geared toward the U.S. culture (low U.S. contextual-perceptions), IEC would be positively related to cultural fit, and IUS would be negatively related.

e. Similarly, relationships between cultural competence and cultural fit will be moderated by youths' perceptions of U.S. resources in the daily contexts (in the same way as noted above).

- For students who believed that the resources and climate in their context were predominantly geared toward the U.S. culture (high U.S. contextual-perceptions), U.S. competence would be positively related to cultural fit, and ethnic competence would be negatively related.

- Conversely, for those who believed that their daily contexts were not very geared toward the U.S. culture (low U.S. contextual-perceptions), ethnic competence would be positively related to cultural fit, and U.S. competence would be negatively related.

f. Finally, relationships between cultural belongingness and cultural fit will be moderated by youths' perceptions of the prevalence of U.S. resources in the daily contexts (in the same way as above).

- For students who believed that the resources and climate in their context were predominantly geared toward the U.S. culture (high U.S. contextual-perceptions), U.S. belongingness would be positively related to cultural fit, and ethnic belongingness would be negatively related.

- Conversely, for those who believed that their daily contexts were not very geared toward the U.S. culture (low U.S. contextual-perceptions), ethnic belongingness would be positively related to cultural fit, and U.S. belongingness would be negatively related.

II. BACKGROUND AND SIGNIFICANCE

Overall, acculturation has been linked to an array of adjustment indices, ranging from clinical symptomatology (Arce, 1982), to delinquency and deviant behavior (Wong, 1999; Gil & Vega, 1996), to drug use and MMPI scores (Chen, Unger, Cruz & Johnson, 1999; Escobar, 1983; Escobar, Randolph & Hill, 1986; Padilla, Olmedo & Loya, 1982), to utilization of therapy resources and drop-outs from treatments (Miranda, Andujo, Caballero, Guerrero; Ramos, 1976; and Szapocznik, Santisteban, Kurtines, Hervis & Spencer, 1982). Despite the numerous associations, however, there are currently no discernible patterns among the body of findings. As a whole, it seems that our understanding of the links between acculturation and adjustment is a conflicted one (Sanchez & Fernandez, 1994; Rogler, Cortes, & Malgady, 1991, Nguyen et al., 1999).

One set of findings, for example, indicates that acculturation is positively related to mental health (e.g., Pawliuk, Grizenko, Chan-Yip, Gantous, 1997; Salgado de Snyder, 1987; Yu & Harburg, 1981)—while, in contrast, another set suggests that acculturation is negatively related (e.g., Wong, 1999; Davis & Katzman, 1999; Gowen, Hayward, Killen, Robinson & Taylor, 1999; Burnham, Hough, Karno, Escobar & Telles, 1987; Sorenson & Golding, 1988). To complicate matters further, additional research report a curvilinear relationship (where moderate levels of acculturation are associated with positive health) (e.g., Berry, 1998; Berry, Kim, Minde & Mok, 1987; Miranda & Umhoefer, 1998; Birman, 1998; Szapocznik & Kurtines, 1980; Szapocznik, Kurtines, & Fernandez, 1980; Wong-Rieger & Quintana, 1987), while other studies reveal no relationships at all (e.g., Smither & Rodriguez-Giegling, 1979).

Such conflicts are problematic because it impedes our understanding of the adjustment processes in minority populations. Hence, one purpose of this study was to examine why there are such conflicts, and in so doing, to unravel the complexities and develop a more coherent understanding.

Overall, it seems that there are various reasons for the conflicting findings—ranging from the different types of adjustment criteria used (Searle & Ward, 1990; Ward & Searle, 1991; Ward & Kennedy, 1994), to the different conceptualizations of acculturation itself (Sanchez & Fernandez, 1994; Nguyen & von Eye, *under review*; Nguyen, et al., 1999; Rogler, Malgady & Cortez, 1987) to the different contexts in which groups members reside. Failure to account for any of these differences could lead to contradictory results.

It is my contention that one of the main limitations in current acculturation-adjustment research is that it focuses solely on outcomes, rather than mechanisms leading to such outcomes. Hence, it is possible that past research has been conflicting because it failed to acknowledge important mediating and moderating variables that could shape the impact acculturation has on the adjustment of minority populations. As suggested earlier, one such variable is "context". Other factors—i.e., the conceptualization of acculturation and the operationalization of adjustment—were addressed in our previous work (Nguyen et al., 1999.) In addition to "context" (a moderating variable) other variables, such as cultural fit, cultural competence and cultural belongingness (mediating variables) also seem important in delineating the mechanisms of adjustment among ethnic groups.

Context, ethnic density, and cultural fit. Although various components of the context (e.g., availability of ethnic resources, perceptions and experiences of discrimination, sense of "cultural fit" etc.) can have profound impact on the mental health of minority populations, they have often been overlooked in past research. Very few studies have described, let alone measured the potential influence of contextual factors. Most seem to study acculturation-adjustment links in "isolation," devoid of the historical and sociocultural backgrounds of the particular ethnic group. The few studies that have incorporated a sense of context have only done so descriptively—rather than descriptively and empirically (e.g., Gil & Vega, 1996, Murphy, 1965, Mishra, Sinha & Berry, 1996, Szapocznik & Kurtines, 1980).

Yet some studies suggest that contextual factors are vital in shaping the mental health of minority populations (Gil & Vega, 1996; Murphy, 1965; Berry, 1994, Mishra, Sinha & Berry, 1996; Szapocznik & Kurtines, 1980). Gil and Vega (1996), for example, studied Cuban and Nicaraguan families in Miami and found, overall, that the Nicaraguans experienced more cultural stress (i.e., more experiences of discrimination and greater language and acculturation conflicts) than did their Cuban counterparts. Despite having similar education levels, they also had lower incomes and SES than did the Cubans. Gil and Vega attributed these findings to the different conditions in the groups' contexts, explaining that the Cubans fared better because they had more established enclaves and resources than their Nicaraguans neighbors—who, in contrast, encountered greater barriers in their resettlement to Miami (i.e., more exploitation by Mexican police, more restrictions in obtaining job permits and legal residence, etc.).

Previous findings with Cuban and Nicaraguan youth in Miami also confirm the importance of context (e.g., Vega, Gil, Warheit, Apospori, & Zimmerman, 1993a, Vega, Gil, Zimmerman, & Warheit, 1993b). For instance, Vega and his colleagues (Vega et al., 1993b), found that Nicaraguan youth fared worse than their Cuban peers in terms of suicidal ideation and attempts. Moreover, Nicaraguan youth were also more likely to report low self-esteem, high family substance use, and high perceptions of poor life chances. While Vega et al., did not discuss context in great detail in this study, the same interpretations could apply (as those above)—since both studies were conducted in the same context (Miami) around the same time. That is, Cuban youth may have fared better, in part, because they have more community resources in Miami. As Vega et al. mentioned, Cuban youth were "more likely to have families that were part of an established enclave noted in Miami for its affluence and political organization [than Nicaraguan youth] (1993, p. 238)." Such community resources may be why Cuban youth and their families did better overall.

Similarly, Murphy (1965) found that the contextual factors such as ethnic-density were inversely linked to problems among immigrants. More specifically, he found that minority individuals who resided in areas where there was a substantial population of immigrants tended to have lower rates of hospitalization. His findings seem to underscore the importance of "contextual factors" and furthermore, the concept of "cultural fit" in facilitating one's mental and physical health (as measured by less clinical disorders and lower hospitalization rates). Murphy's discussion illustrated the importance of contextual factors even more, as he noted:

> Faris and Dunham (1960) showed that in those districts of Chicago where the foreign-born were in majority, their hospitalisation rates were quite low, lower for some disorders, than the city-wide rates for the native-born-of-native parentage. Lemert (1948) showed that, for rural Michigan, there was a negative correlation between the percentage strength of an ethnic minority and the level of its hospitalisation rate. For Canada, the same thing is illustrated by Chinese hospitalisation rates in the different provinces. In British Columbia, the only province that has a real Chinatown, the Chinese have the lowest hospitalisation rate of all ethnic minorities. In Ontario, where the Chinese are scattered throughout the province in "penny" numbers and have no real focus, they have the highest rate of all ethnic minorities. In addition, a similar picture was found in Britain, where Polish refugees showed an inverse association between local group size and relative incidence of mental hospitalization (Murphy, 1965, p. 25)

Like Murphy, Mishra et al. (1996) also alluded to the importance of contextual demands and cultural fit. In their research, they studied three indigenous tribes from South India and found that the most nomadic tribe—i.e., the hunter-gatherers—fared worse in terms of acculturative stress and physical and psychological symptoms. Mishra et al. (19996) attributed their findings to differences in "eco-cultural dissonance" between the three tribes. They explained that compared to the more agrarian tribes, the hunter-gatherers had the greatest dissonance between their lifestyle and the lifestyle advanced by the acculturative pressures taking place in their world. It is this dissonance (or lack of cultural fit) that leads to increased difficulties.

Finally, a small handful of research measured cultural fit directly and found that the inverse of fit—i.e., the "cultural distance"—was linked to more difficulty in managing everyday situations (Searle & Ward, 1990; Furnham & Bocher 1982) and to more anxiety, depression, and medical consultations (Babiker, Cox & Miller, 1980; Ward & Searle, 1991).

While Murphy's (1965) and Searle and Ward's (1990) research do not focus on acculturation *per se,* their work as well as Gil and Vega's (1996) and several others (e.g., Szapocznik & Kurtines, 1993, Portes & Rumbaut, 1996, Lackland, 1998; Armes & Ward, 1989; Church, 1982; Berry, 1993, 1998) have important implications for understanding acculturation-adjustment links. Taken together, these studies suggest that contextual variables (such as community resources, ethnic density and cultural fit) have important implications in shaping the adjustment of immigrant populations. Hence, one objective of the present study was to assess the extent to which these variables relate to links between acculturation and adjustment. To do so, I incorporated descriptive and empirical indices of the community context.

Cultural Competence and belongingness. In addition to examining contextual variables, it also seemed important to consider themes of competence and belongingness when studying mechanisms that influence acculturation outcomes. Like the contextual variables, these themes have emerged as descriptive explanations for acculturation-adjustment links. They have not, however, been measured empirically in the acculturation literature. Such themes are best exemplified in the two sets of relationships noted below:

Positive Relationship (High Acculturation and High Distress). Research findings documenting a positive relationship between acculturation and psychological distress have linked high levels of acculturation with various clinical disorders, including: major depression, phobia, dysthymia, suicide, and substance abuse/dependence (Burnham, Hough, Karno, Escobar & Telles, 1987; Caetano, 1987; Sorenson & Golding, 1988). High levels of acculturation have also been linked with higher rates of delinquency and

deviant behavior (Graves, 1967; Szapocznik & Kurtines, 1980a, 1993; Szapocznik, Kurtines & Fernandez, 1980) higher MMPI scores (Padilla, Olmedo & Loya, 1982) and higher anorexia scores (Pumariega, 1986). Furthermore, high acculturation levels have also been linked to greater family conflicts and greater difficulty in school (Charron & Ness, 1981; Ramirez, 1969; Szapocznik, Kurtines, & Fernandez, 1980; Rumbaut, 1991). For example, in his study of Indochinese adolescents, Rumbaut (1991) found that youth who were "becoming too American" were proportionately less successful in academic attainment.

A review of these findings suggests that increases in acculturation not only alienate individuals from their supportive ethnic group but that they also give rise to ethnic and self-hatred. Such increases can lead to internalizations of damaging behaviors and beliefs that are a part of the dominant culture; they may include hurtful stereotypes, prejudices and discrimination toward the person's ethnic group. Consequently, such processes may result in self-deprecation, ethnic- and self-hatred, and a weakened ego structure (Rogler, Cortes, & Malgady, 1991). In sum, the rationale here seems to be that belongingness with those in one's culture helps to facilitate a sense of support, identity, and mental health.

Negative Relationship (Low Acculturation and High Distress). In the second group of findings, low levels of acculturation have also been linked to psychological distress. Whether measured by length of residency, by loyalty to the culture, or by lack of English proficiency, low levels of acculturation has been associated with various problems, including depression, withdrawal, and obsession-compulsion (Torres-Matrullo, 1976) as well as somatic symptoms, combat stress, PTSD, and alcohol abuse/dependence

(Escobar, 1983; Escobar, Randolph & Hill, 1986). Similarly, low levels of acculturation have also been linked to increased numbers of Negative Life Events (i.e., divorce, death, hospitalizations) and increased Dissatisfaction with Life (i.e., boredom, dreariness, sadness) (Salgado de Snyder 1987a).

Researchers in this group suggest that when acculturating individuals have been uprooted from traditional interpersonal relationships, they are more likely to experience loneliness and isolation in their new environment. Such challenges, coupled with an absence of instrumental skills (e.g., knowledge of the main language, access to different resources) may prevent the uprooted individual from becoming familiar, comfortable, and competent in his/her new world. Consequently, these predicaments may lower self-esteem and give rise to dysfunctional behavior (Rogler, Cortes, & Malgady, 1991). In this set of findings, there seems to be themes of both competence and belongingness.

In general, themes of competence and belongingness seem to arise often in the acculturation literature—as allusions or explanations to findings. Yet seldom have they been measured directly to acculturation or acculturation-adjustment links.

The closest that they have been addressed are in studies of groups undergoing cultural transitions. These studies typically link competence and belongingness to adjustment. For example, with regard to cultural competence, indices such as cross-cultural training, previous cross-cultural experience, and ability to manage everyday situations have been linked to better adjustment—in terms of depression (Armes & Ward, 1989), social and environmental functioning (Pruitt, 1978; Klineburg & Hull, 1979), satisfaction with host-national relations (Searle & Ward, 1990), and mood states such as tension, anger, fatigue, confusion and vigor (Ward & Kennedy, 1993). Similarly, with

regard to cultural belongingness, indices such as social support, close ethnic friendships, absence of loneliness, access to support networks, and satisfaction with host-national relations have been linked to better adjustment—in terms of depression (Searle & Ward, 1990), acculturative stress (Berry, Kim, Minde & Mok, 1987), psychiatric symptoms (Lin, Tazuma, & Masuda, 1979), and psychological distress (Feinstein & Ward, 1990). In sum, cultural competence and belongingness have not been linked directly to acculturation; given their associations to adjustment, however, such themes may be important factors in delineating acculturation research.

It is interesting to note that while the acculturation findings seems conflicting, their explanations are not. That is, it is possible that both themes of competence and belongingness play a role in shaping one's adjustment (as demonstrated above). It does not have to be an "either-or" issue. Consequently, the seemingly conflicted and fragmented findings in the literature may be better integrated by examining the mechanisms or explanations that underlie both set of findings. In sum, it is my contention that part of the reason for the conflicting findings in the acculturation literature (and thus, the impediment to understanding the adjustment of minority populations) may be due to the fact that research has focused only on the outcomes of acculturation, rather than the processes leading to such outcomes. I believe that if we examine factors such as competence and belongingness as well as perceptions of context and contextual/cultural fit, we can begin to unravel the complexities and organize the disjointed parts into a more coherent understanding. Hence, the purpose of this research was to evaluate a theoretical model that attempts to integrate fragmented pieces into a

more complex set of mechanisms (rather than a simple outcome). The purpose, too, was to empirically examine aspects that were before only descriptive or explanatory (i.e., perceptions of contextual resources, sense of cultural fit, cultural belongingness, cultural competence).

In addition to evaluating the model, another ancillary objective of the project was to develop more statistics involving minority youth, particularly those in less populated areas. Most of the research that have been conducted with immigrant populations have been with adults and/or with groups in large metropolitan areas (e.g., L.A., Miami, Houston, etc.). This research was somewhat unique it that it focused on minority youth living in a predominantly Anglo-American context (of approximately 125,000 people). The goal was to develop basic descriptives regarding the psychosocial functioning of minority youth in less urban areas.

III. PRELIMINARY STUDIES

Much of the present research was built on the foundation of our previous investigation with Vietnamese adolescents in Lansing, Michigan (Nguyen et al., 1999). In this work, we assessed how involvement levels in U.S. and Vietnamese cultures (i.e., acculturation) related to various indices of adjustment, and found, overall that U.S. involvements related to positive functioning (i.e., in terms of lower depression and symptomatology, and higher self-esteem, school G.P.A., and quality of family relations). Additionally, we found that involvements in the Vietnamese culture related to "mixed" functioning—that is, stronger family relationships but lower levels of self-esteem and higher levels of levels of depression and symptomatology.

The use of different adjustment indices, as well as the investigation of an ethnic group residing in the predominantly "American" contexts of Lansing led us to speculate that the differences in acculturation-adjustment links may be partly related to the prevailing demands and resources inherent to this type of setting. It is possible that Vietnamese youth who were more involved in the U.S. culture may be better adjusted because such involvements fit with the demands and resources in their Lansing context (e.g., larger Lansing neighborhood and community). More specifically, we speculated that youth who were more involved in the U.S. culture were more competent and knowledgeable in their U.S. settings, and furthermore, more connected with U.S. people than peers who were less involved. Given the Western influences in Lansing, such competence and connection would likely facilitate youth's adjustment. Similarly, youth who were more involved in the Vietnamese culture may have greater difficulties because their ethnic involvements may not fit with the Western demands and resources in Lansing.

These findings suggested that to fully understand the nature of acculturation-adjustment relationships, it is essential to understand the context in which such relationships evolve. In this previous research, we developed a theoretical model to provide a framework or background from which to explore acculturation-adjustment relationships. In the present study, we move the model from background to forefront, to test the ecological mechanisms/speculations more empirically. This model includes not only contextual influences but also indices of cultural fit, cultural competence, and cultural belongingness.

V. DEFINITION OF MAJOR VARIABLES

Acculturation. Acculturation was defined as the process of change and adaptation that results from continuous contact between those of different cultures (Redfield, Linton & Herksovitch, 1936; Berry, 1991). The concept is significant in this discussion because it provides a connection, a link between individual and society. It helps to explicate our understanding of how exposure to new and different and diverse sociocultural environments can influence (and be influenced by) psychological changes within the person. In this study, acculturation was based on a culturally-pluralistic model and operationalized according to a two-dimensional framework—via involvements in the ethnic culture (i.e., Mexican or Vietnamese) and the host culture (i.e., U.S.). Involvements were further operationalized according the traditional attitudes, values and behaviors pertaining to the particular culture (e.g., language, friendships, food, music).

Cultural Competence. Cultural competence was defined as having the set of skills essential to function within a given culture—whether ethnic or host. Overall, it refers to one's ability to function in a particular cultural context. It includes one's knowledge of the language, traditions and expectations of a certain culture, as well as one's ability to meet the demands salient in that culture/context. In this study, cultural competence was measured subjectively (for the sake of simplicity), according to the individual's overall sense of competence in the ethnic and host cultures. Altogether, there were two indices: ethnic competence and U.S. competence.

To provide a little background, cultural competence has not been discussed very much in the acculturation literature. Borrowing from other fields (e.g., child development, clinical interventions), however, it has been broadly defined as the ability to function in a given cultural context (e.g., ethnic vs. host cultures). It emphasizes

"skills in context" and entails having the abilities necessary to perform culturally-specified tasks. Past researchers and theorists have defined competence as the ability "to influence the environment" (Ainsworth & Bell, 1974), "to get on in a complex culture" (Connolly & Bruner, 1974), and "to perform socially valued roles in a given society" (Inkeles, 1968). Essentially, it involves "an individual's everyday effectiveness in dealing with his environment" (Zigler, 1973).

Overall, cultural competence can be delineated according to various dimensions—such as cognitive, linguistic, practical and social-emotional domains (Ogbu, 1981; White, 1973; Williams, 1970; Connolly & Bruner, 1974). It can also include aspects such as having a sense of cultural knowledge and awareness (Pope-Davis, 1994) or having the ability to communicate effectively and work collaboratively with members of a particularly culture (Abe-Kim & Takeuchi, 1996; Allison, 1996; Garcia, 1995). In general, cultural competence is a sense of agency (Bakan, 1966). It involves an ability to implement the task at will (Schneider, 1993) and an operative intelligence—a knowing how rather than simply knowing that (Connolly & Bruner, 1974).

Cultural Belongingness. In this study, cultural belongingness was defined as a sense of connection with others in close, enduring relationships. It refers to individuals' attachment to people, and like competence, was measured subjectively—according to one's overall sense of connection with people in the ethnic and host cultures. Altogether, there were two indices: ethnic belongingness and U.S. belongingness.

This attachment to *people* of certain cultures should be distinguished from attachment to *culture* per se; the former implies a sense of relationships and the latter, a sense of nationalism. While the two may be interrelated, belongingness in this study

refers specifically to relationships with people in the ethnic and/or host cultures. This distinction is important because it is the relationship that is hypothesized to facilitate adjustment (not the nationalism).

Like competence, cultural belongingness has not been discussed much in the acculturation literature. Borrowing from other fields (e.g., child development), however, it was defined as a sense of connection or attachment with others in close, enduring relationships (Myers, 1995; Bowlby, 1969; Ainsworth 1978). It is a bond with important others (Harwood, Miller, Irizarry, 1995; Bowlby, 1969; Ainsworth 1978), and it entails a sense of "communion" or "being at one with other organisms" (Bakan, 1966). In essence, it involves a sense of contact, union, or participation of the individual in some larger organisms in which the individual is a part (Bakan, 1966). In his book on migration and belonging, for example, Weiberg (1961) affirmed the importance of belongingess for all individuals, especially for immigrants who have been uprooted from significant relationships. He asserted that belonging is a precondition to mental health and defines it, in essence, as a "feeling of being part of the society through its representation by the immediate environment—family, friends and community—through loving it and being loved by it. Love here [refers to a sense of connection or a] dynamic feeling of closeness, liking, and unitedness with others...(p. 245)."

Cultural Fit. Cultural fit was defined as the "consonance" between individual and context on various cultural indices. More specifically, it is the congruence between the cultural characteristics and preferences of the individual with the cultural presses, demands, and resources in his/her context. In this study, it was measured in two ways. First, it was assessed via the individual's sense of fit in terms of competence and

belongingness in different contexts (i.e., school, peer, family, Lansing and overall contexts). In essence, it was the "match" between the adolescent and their different environments—in terms of having the necessary skills and knowledge to function in their environments and in terms of feeling connected to the people in their environment. The greater the match, the better the cultural fit.

Second, borrowing from Ward et al.'s work (e.g., Ward & Searle, 1990), cultural fit was also measured in terms of "dissonance." It was defined as the extent to which individuals' behaviors and experiences *differed* from those in the mainstream, U.S. culture on nine, different dimensions (i.e., food, clothing, language, friendships, religions, worldviews, gender roles, family expectations, and values regarding school). The greater the difference, the lower the cultural fit.

From hereon, the first index of cultural fit will be termed as fit-environments (for the fit respondents experience overall, in different environments), while the second index will be termed as fit-dimensions (for the specific dimensions in which they experience cultural fit).

With the exception of Ward's et al.'s work, cultural fit has not been measured very much in the acculturation literature. It has, however, been discussed theoretically—with terms such as "eco-cultural dissonance," "acculturation consonance," "social inconsistency," "cultural distance" etc.. Typically, researchers infer cultural fit via the prevalence of ethnic density and community resources in a particular context (e.g. Gil & Vega, 1996; Murphy, 1965; Mishra et al., 1996). The rationale here is that the greater the resources, the better the cultural fit.

In addition to fit between individual and community context, cultural fit has also been addressed in terms of consonance within the family context—between parent and children's acculturation styles for example. These studies typically refer to fit in terms of "differential acculturation" (Matsuoka, 1990) or "acculturation consonance vs. dissonance" (Portes & Rumbaut, 1996). Such concepts are also similar to themes of "goodness-of-fit" commonly used in developmental research (e.g., Lerner & Lerner, 1983; Lerner, Lerner & Zabski, 1985; Talwar, Nitz & Lerner, 1990).

Overall, these studies found that the greater the fit—be it in acculturation styles or autonomy expectations—the better the outcomes in individual adjustment and parent-child relations (e.g., Portes & Rumbaut, 1996; Matsuoka, 1990; Talwar et al., 1990; Lerner, 1983; East, Lerner, Lerner, Soni, Ohannessian & Jacobson, 1992). While this study focuses primarily on fit within the community (rather than within families), such findings are important because the same patterns and outcomes may apply to fit within the community contexts as well.

As suggested perviously, cultural fit was defined as the congruence between individual and community. The measurement of fit here is different from previous research in that it focused on the community or overall contexts and that it measured empirically one's subjective sense of fit. As stated earlier, past researchers have typically inferred cultural fit from the prevalence of community resources and established enclaves. While such inferences may be useful, they can also be problematic by themselves—since they assume that such resources are important to the sense of fit for *all* individuals. Such inferences do not account for individual variations in cultural identifications and preferences (not all individuals may identify with their enclaves) or

for what individuals ascribe as important to their sense of fit. Since "structural consonance" (e.g., having community resources, established enclaves, ethnic density, etc.) may not always lead to one's subjective sense of fit, this study measured cultural fit descriptively—via the amount of community resources, ethnic density—as well as directly and empirically—via individuals own perspectives/ratings.

Context. In this study, context was defined as the "cultural climate" or overall sense of cultural presses, resources, and influences predominant in the Lansing community. It was measured descriptively and empirically. Following the approach of previous researchers, context was first, assessed via descriptives of the community resources, established enclaves, and ethnic density in Lansing. Examples of these more objective, concrete descriptions include the amount of American vs. ethnic people, the numbers of ethnic churches, agencies in the area, etc. (For more specific information, see section on Vietnamese and Mexican populations).

Second, context was measured empirically, via students' perceptions of the cultural resources and climate in their environment. It was measured as the extent to which students feel as if the opportunities, resources, atmosphere and people in their daily environments were geared toward (1) those in the Anglo-American and (2) toward those in Vietnamese/Mexican culture. There were two ratings overall—one pertaining to the host culture, and the other, to the ethnic culture.

In contrast to the more objective descriptives above, these perceptions of context were more subjective and empirical in nature. They were incorporated here because they allowed us to (1) assess students' phenomenological (or subjective) realities and (2) to empirically test how "context" may be related to acculturation-adjustment links.

Adjustment. Adjustment in this study was defined as one's overall functioning. It was measured according to an array of indices spanning three life-domains—i.e., the personal (i.e., symptomatology, depression, self-esteem, life-satisfaction, and disposition to delinquency), interpersonal (i.e., family, peer and teacher relations) and academic domains (i.e., school G.P.A., standard math and reading scores, educational/academic aspirations, and time spent on homework). In general, the personal domain assessed youths' psychological well-being; the interpersonal domain assessed the quality of their relationships; and the academic domain assessed their scholastic functioning.

This array was chosen, in part, to allow for the complexity of different relationships. As suggested previously, one of the reasons why acculturation findings have been conflicting was because of the divergence of adjustment indices used—across studies (Ward & Kennedy, 1994; Searle & Ward, 1990; Ward & Searle, 1991; Nguyen et al., 1999, Sanchez & Fernandez, 1999). Typically, one study would examine one adjustment index, while another, a different index. This divergence made it difficult to compare findings (across studies)—since each study differed not only in adjustment indices used but also in many other variables (e.g., in operationalization of acculturation, in context studied, in ethnic-group used, etc.). Hence, this study used multiple adjustment indices to (1) allow for more direct comparisons of relationships and (2) to better delineate the complexity of patterns (e.g., acculturation's positive vs. negative, vs. multiplicative links with different adjustment indices).

This array of indices was also chosen, in part, to reflect the major areas of youth's lives. Freud (1935) postulated on the importance of love and work in one's adjustment, and Bakan (1966), on communion and agency. Following these postulations, I

incorporated interpersonal and academic domains and furthermore, added the personal domain. These domains were speculated to be salient aspects in youth's lives, at this stage in their development. They were chosen to provide a multidimensional and more comprehensive look at youth's functioning.

Finally, the array of adjustment indices was also chosen, in part, to reflect the different subcontexts in which youths live (e.g., school, peer, family contexts). Since context was argued to be an important factor in studying acculturation-adjustment links, it would be helpful to incorporate indices that reflect different contexts (e.g., family relations – family context). This array provides a way to speculate about the salience and implications of different subcontexts.

In sum, adjustment was measured according an array of indices in the personal, interpersonal, and academic life-domains. This array was chosen for several reasons: (1) to allow for the complexity of different relationships, (2) to reflect the salient areas in youth's lives, and (3) to reflect the different subcontexts in which they live (e.g., school, peer, family contexts).

IV. THE POPULATION: VIETNAMESE & MEXICANS IN LANSING

Because acculturation-adjustment links vary not only with operationalizations, but also with contexts and ethnicities, it is important to consider our population and setting of interest—i.e., the Vietnamese and Mexicans in Lansing, Michigan. As many theorists have noted (e.g., Ogbu, 1993, Rumbaut, 1991, Ward & Kennedy, 1992), the ethnic groups, as well as their contexts of departure (e.g., motive of push vs. pull factors) and contexts of reception (ethnic density, community resources, etc.) can impact how immigrants/refugees acculturate to their new world. With this in mind, let us turn now to the population of interest.

THE VIETNAMESE POPULATION IN INGHAM COUNTY

Cultural Values and Characteristics.

Traditionally, the Vietnamese culture is collective, multigenerational and hierarchical in nature. It is a culture shaped by Confucian and Buddhist ideals that emphasize an individual's position in a structured hierarchy. It is also a culture in which family interests take precedence over personal ones and in which one's primary duty is to the family lineage.

According to Vietnamese tradition, the family is of central importance. In contrast to more egalitarian and nuclear orientations of Western families, Vietnamese families are characterized by an extended, multigenerational system—where several generations live under the same roof at a time and by a hierarchical structure—where persons at the top of the hierarchy make decisions relevant to all those below them (Nguyen & Williams, 1988). The individual is expected to defer to the goals of the family and to the head of the household in all matters dealing with family welfare and

continuity. The father, as head of the household is expected to support his dependents. He is viewed as the full authority on all matters inside the family. The mother is generally responsible for everything inside the house and is expected to be subservient to her husband. Girls are expected to manifest modesty, obedience, and chastity, while boys are expected to exhibit adult male behavior and to take care of their parents throughout the parent's life (Matsuoka, 1990).

Common themes within the Vietnamese family include: filial piety, unquestioning obedience, and respect for age and seniority (Matsuoka, 1990). Filial piety is a central ethic in the Vietnamese culture. It is broadly defined as "the honor, reverence, obedience, loyalty, and love owed to those who are hierarchically above you (Chao, 1992, p. 138)", and as Nidorf maintains, it "...is the single most important construct binding and organizing...the psychological experience and social reality..." of Vietnamese people (Nidorf, 1985, as cited in Nguyen & Williams, 1988, p. 506).

Since filial piety dictates that children think of their parents first, another primary value in the Vietnamese ethic is "unquestioning obedience" to parental authority (Nguyen & Williams, 1988). Vietnamese children are expected to defer to parents' decisions in all domains of their lives—e.g., career choices, marriage partners, etc. As suggested earlier, parents' authority and family interests take precedence over individual preferences.

Family harmony is another important theme in the Vietnamese culture, and so is respect for age and seniority. It is customary to avoid conflicts between parent and child, or between younger and older siblings, through deferential and respectful behavior. Filial relationships with parents and siblings are among the highest priorities within the Vietnamese culture (Matsuoka, 1990 p. 341).

While the family may be important in mainstream U.S. cultures, it is of central importance in the Vietnamese culture. The Vietnamese family is collective and multigenerational—and is often viewed as a superorganism of generations past and future. Adolescents are said to achieve their identity primarily through their family —i.e., through close relationships with family adults and through their membership in an extended family system (Matsuoka, 1990). Conversely, an individual's behaviors are said to reflect on the family as a whole (Uba, 1994).

However, as adolescents grow-up in a more "individualistic" society, the values and expectations they incorporate may conflict with those instilled at home. The American emphasis on individuality, self-assertion, and egalitarian relationships, for example, may challenge many of the traditional values in the Vietnamese culture (Nguyen & Williams, 1988). It is likely then, that many of the youth in the present sample may be face conflicting demands between their contexts at home and the contexts in the larger society—or said more succinctly, between the demands of individualistic vs. collectivistic cultures. (For more information regarding the Vietnamese culture, see Gold, 1993, 1992, 1988; Rutledge, 1992; Caplan, Choy & Whitmore, 1996; Matsuoka, 1990; and Nguyen and Williams 1986. Also see Gold for information on the Vietnamese culture/family and their resettlement into the United States (Gold, 1997, 1993, 1992, 1989, 1988; Gold & Kibria, 1993)

Context of departure.

With regard to their context of departure, the majority of Vietnamese residents in Ingham County were refugees. Their "refugee-experience," however, was somewhat varied, falling equally into one of three waves (according to P. Hepp, Director of Refugee Services; personal communication, September 1995). The first wave, occurring around the mass exodus of 1975, consisted mostly of people who were more educated than peers in latter waves. The second wave, occurring between 1978-1982, consisted mostly of "boat people." And finally, the third wave occurring from 1991-1994, consisted mostly of people whose arrivals were supported by federal operations such as the Amerasian and the Orderly Departure Programs. As such, the vast majority of Vietnamese people arrived in Ingham County following the aftermath of the Vietnam War; very few lived in the U.S., let alone in Lansing before 1975.

Context of reception.

With regard to their context of reception, Ingham County is a predominantly "American" community—where Anglo-Americans comprise of 84% of the total population (U.S. Census Bureau, 1990). In contrast to the 237,000 Caucasian residents, there are only 703 Vietnamese people (both adults and children) in Ingham County, with 418 living in the city of Lansing and 99 in East Lansing (the county's principal municipalities). Altogether, the Vietnamese people comprise of only 0.2% of the local population (U.S. Census Bureau, 1990). And, as these numbers suggest, most of the social and economic resources in the Lansing area require U.S. skills. There are very few Vietnamese resources or enclaves in this setting (e.g., few formal or informal groups for the Vietnamese people, etc.). At most, there is one market, one (Catholic) church, and

one or two Vietnamese restaurants. In contrast to enclaves such as "Little Saigon," California where Vietnamese individuals can function for years without uttering a word of English—those in Lansing, Michigan require U.S. skills/facilities to function successfully in their everyday contexts.

THE MEXICAN CULTURE IN INGHAM COUNTY

Cultural Values and Characteristics.

Like the Vietnamese culture, the Mexican culture also places great emphasis on family and community integration (Kaplan & Marks, 1990). Family is said to be the most important institution for Mexicans—and familism, the single, most established ethic (e.g., Alvirez & Bean, 1976; Moore, 1970). Familism in the Mexican family is usually characterized by an individual's identification and attachment with their families—both nuclear and extended. It is marked by strong feelings of loyalty and a reciprocity and solidarity among family members (Sabogal, Marin, Otero-Sabogal, 1987).

The Mexican family is often viewed as a problem-solving unit that serves as a retreat and protection from the outside world (Smart & Smart, 1994). Where Anglo-Americans are more likely to turn to friends and professionals for help in time of need, traditional Mexicans are more likely turn to their family (Keefe, 1980). The kinship within these families often encompasses a deep sense of obligation by its members for economic assistance, emotional support, and personal correction (Smart & Smart, 1994).

Within the traditional Mexican family, there is also strong hierarchy/patriarchy where males are viewed with deference. Gender divisions and male "machismo" are evident, and like Vietnamese families, daughters and wives are defined as subordinate to

their husbands and fathers (Williams, 1990). However, such emphases on masculine superiority may not as strong in Mexicans today (Hartzler & Franco, 1985).

In addition to familism and male dominance, another important value for Mexicans is their spirituality. This spiritually is often connected to Catholicism and at times, is described as the "mestizo" perspective. The mestizo refers to a strong belief in the interconnectedness with all of life; it is a dynamic, synergistic process developed from the amalgamation of peoples, philosophies, and cultures. The main tenet of the mestizo is an introspective attitude that fosters a sense of wholeness in one's relationship with self, family, community, and the physical and social environment. In general, spirituality, like the Mestizo perspective is an important part of the Mexican culture; it values a sense of wholeness with self and others and of building a strong community base (Cervantes & Ramirez, 1992, p. 105-106).

Finally, Mexicans are socialized to family commitment, to value authoritarianism, to adhere to convention, to revere their authorities, to respect the family hierarchy, and to develop an identity through their family (Buriel, 1975). Additional themes include a genuine respect and trust in interpersonal relationships and an unquestionable belief in an authoritarian and just God (Ramirez & Castaneda, 1974).

Context of departure.

In contrast to the Vietnamese refugees, the Mexicans were immigrants (migrant workers)—initially drawn to Lansing for economic reasons. They immigrated to Lansing over 20-40 years ago primarily from Texas and Mexico. Their families have lived in Ingham County for generations—most are 2nd or 3rd generation Americans, if not 2nd or 3rd generation residents of Lansing. Most Mexican parents and grandparents, in fact,

were born in the United States, and as some community leaders suggest, have lived in the States (e.g., Texas) even before they became the States. In general then, Mexican families came to Lansing for different reasons (the pull of immigrants vs. push of refugees), and they are more rooted in Lansing than their Vietnamese counterparts.

Historically, the Mexicans were immigrants, drawn to the Lansing Area because of the auto and agricultural industries. While they can be found in a broad array of occupations now, the majority of Mexicans in Ingham County are working class citizens, who fall in the low to middle rank of the SES ladder. Most of them work for the auto industries at General Motors or for the service industries at Michigan State University.

Context of reception.

With regard to context of reception, Ingham County is somewhat supportive of the Mexican culture/population—in terms of ethnic density and community resources. Altogether, there are approximately 11,000 Mexicans in Ingham County. While the 1990 Census Data do not have exact numbers on the Mexican group *per se*, local community leaders have estimated that the majority (80-90%) of Lansing's Hispanic population are Mexicans. Since the Hispanic population in Ingham county consists of 5% (or 13,500) of the local population, it is estimated that the Mexicans comprise of 3% (or 11,000) of the total population in Lansing.

In addition to ethnic density, the Mexicans also have a substantially viable sense of community and community resources in Ingham County, (especially in comparison to Vietnamese peers). There is an array of resources for Mexican people in Lansing, including 1+ newsletter, 4+ churches, 6+ restaurants, 7+ businesses, and 16+ agencies and organizations (Michigan Commission on Spanish Speaking Affairs, 1995).

Additionally, there are several Spanish TV and radio shows as well as a Mexican festival every summer. [All information in this section were attained via the Hispanic Resource Directory (Michigan Commission on Spanish Speaking Affairs, 1995) and via personal communications with: G. Lopez at Christo Rey, L. Briones at Julian Samora Research Institute, L. Garcia at the MSU Hispanic Aide Program, and M. Ruiz at Michigan Department of Mental Health, and L. Briones, at Eastern High School; August, 1997.]

CHAPTER 2: METHODS

A. PARTICIPANTS & PROCEDURES

Participants were 496 Vietnamese and Mexican students recruited from seven junior-high and high-schools in Lansing, Michigan (grades 6-12). Lists of all Vietnamese and Mexican (Hispanic) students, as well as their addresses, phone numbers, and class schedules were obtained from the Lansing Public Schools Research Office. Listed students were called from class to meet in small groups with the author, who solicited their participation.

In general, students' ethnicities/placement on the list were determined by their parents' report when filling out school records. Their ethnicities were confirmed later by adolescents' self-reports on the questionnaires and by their reports of their parents' birthplace and ethnicity. To be included in the study, students had to have least one parent who was of Mexican or Vietnamese background. Students could be either foreign-born or U.S.-born.

All eligible, Vietnamese and Mexican students were informed about the purpose of the study, the extent of their involvement, and the date and location of the administration. They were also told that each person who takes part in the research would receive a gift (a university folder), as well as a chance to win one of three cash awards ($100, $50, $25) via a random drawing. Students who agreed to participate were given consent forms in both English and Vietnamese/Spanish and were instructed to bring completed forms (signed by a parent/guardian) to the testing session. A few days before the session, assistants called students to remind them of the study and to answer any questions that they or their parents may have had about the project.

Students took the instruments in group-format in a classroom or cafeteria within the school. Within each administration, participants were divided into two smaller groups, depending on their ability and comfort level in completing English versions of the questionnaires. Those who were more comfortable with English took the questionnaires by themselves, while those more comfortable with Vietnamese or Spanish had the option of using an interpreter. Only 20 Vietnamese students (or 5% of the total sample and 15% of the Vietnamese sample) chose this option—and responded (in writing) to items translated aloud by an interpreter.[1] In addition, the few students who were not literate in either host or ethnic languages (English or Spanish /Vietnamese), had the items read aloud to them in English (N = 2). At the end of the session, students were given their free gifts, thanked for their participation, and dismissed back to class.

Overall, 526 students participated in the study. However, 30 of these students were excluded from the final analyses—because they had too many missing or invalid answers or because they did not meet eligibility/inclusion criteria (e.g., they were Hispanic but not Mexican). Hence, 496 students were included in the final analyses. Of these students, 164 were Vietnamese and 332 were Mexican. Since there were 193 Vietnamese and 709 Mexican students on the list (in total), the overall participation rate for Vietnamese and Mexican students were 85% and 47%, respectively. See Table 1 for the demographics of the Vietnamese, Mexican, and combined (Vietnamese and Mexican) groups.

Footnote 1: It may be important to note that the testing mode (i.e., English versus English with oral translation) did not impact findings overall. More specifically, it did not moderate any links between acculturation and adjustment.

Demographics of Vietnamese Participants.

As stated, 164 Vietnamese students participated in the study. The mean age of the participants was 15 (SD=1.9), with a range from 11 to 20 years. The participants were born in 1982 or 1983 on average. Forty-eight percent of them were male; 52% female. The majority of Vietnamese students (79%) were born in Vietnam, while 20% were born in the United States and 2% were born in other places (i.e., Malaysia and Indonesia). Their mean years of residence in the U.S. was 8 (SD = 4.8), with a range from 6 months to 20 years. The majority of them (67%) self-identified as "Vietnamese," rather than as "Vietnamese-Americans," or "Asians," or any other subcategory.

With regard to family context, 98% of the Vietnamese parents were born in Vietnam and had emigrated as adults in or after 1975. On average, Vietnamese parents lived in the U.S. for nine years (SD = 6.9), with a range of 6 months to 38 years. The majority of the students (81%) lived with both their mother and father, while 3% lived with their mother alone, and 10% with their father alone. The remaining proportion lived with one parent and a step-parent (3%) or with other adult guardians (4%). In addition to living with parents or guardians, 13% reported that they also lived with other extended family members (i.e., aunts and uncles, grandparents, and/or other relatives).

In terms of cultural and linguistic practices, 76% of participants reported that their families celebrated traditional Vietnamese holidays on a regular basis (i.e., often or always). Furthermore, 83% reported that their parents were still traditional in their ways, and 99% reported that people in their home speak Vietnamese, with 93% of them speaking Vietnamese when talking to parents and 90% of them speaking it on a regular

basis (at home). Yet, only 54% preferred to speak Vietnamese most of the time; the other 44% preferred English.

In terms of socioeconomic status, the majority of our sample resided in the less affluent areas of Lansing. Generally, these students came from modest backgrounds. In most cases, their parents were either working in a manual-labor job (74%) or were unemployed (15%); only 5% of the parents were employed in professional occupations and 6% in semiprofessional occupations (as defined be requiring some kind of vocational training). Additionally, 76% of the students reported that their family currently lived in rental housing, compared to the 23% whose parents "owned" their homes and the 1% who lived in "other" places such as with a relative. Even with their modest backgrounds, however, most students (66%) believed that their family's economic situation had improved within the past 5 years.

Demographics of Mexican Participants.

Altogether, 332 Mexican students participated in the study. Their mean age 14 years-old (SD=2.0), with a range of 11 to 20 years; on average, participants were born in 1983 or 1984. Forty-four percent of them were male and 56% female. In contrast to the Vietnamese sample, the majority of Mexican students (98%) were born in the U.S., while only 2% were born in Mexico. Their mean years of U.S. residence was 14 (SD = 2.0), with a range of 2 to 18 years. (Note: The mean and SD of U.S. residence is similar to that of age because 98% of the sample were born in the States and have lived in the States their entire life.) In contrast to Vietnamese peers, most participants in this sample (47%) used a hyphenated identity, referring to themselves as "Mexicans-Americans."

With regard to family context, the majority of parents (77%) were born in the U.S., while 14% were born in Mexico and 2% in other places (i.e., Peru, Cuba, Puerto Rico, South America, El Salvador). (The remaining 7% of youth did not know where their parents were born). On average, Mexican parents lived in the U.S. for 36 years (SD =10.1, range: 1-66 years). About half of the Mexican students (52%) lived with both their mother and father, while 5% lived with their mother alone, and 22% with their father alone. The remaining percentages of youth lived with one parent and a stepparent (17%) or with other adult guardians (3%). In addition to living with parents or guardians, 13% also lived with other family members.

In terms of cultural and linguistic practices, 56% of participants reported that their families celebrated traditional holidays on a regular basis (i.e., often or always) and 43% reported that their parents were still traditional in their ways. Although 86% of youth reported that people in their home speak Spanish, most Mexican students spoke English with their parents (85%) and preferred using English overall (85%); only 15% used or preferred Spanish.

In terms of socioeconomic status, the majority of our sample resided in the less affluent areas of Lansing. Generally, these students came from modest backgrounds where many of their parents were either unemployed (10%) or working in labor-type jobs (60%). Only 7% of parents were employed in professional and 19% in semi-professional jobs. Additionally, 30% of the students reported that their family currently lived in rental housing, compared to the 64% whose parents "owned" their homes and the 6% who lived in "other" places such as relative's). Like their Vietnamese peers, most students (66%) believed that their family's economic situation had improved within the past five years.

Table 1: Demographic Information

	Vietnamese (164)	Mexican (332)	VNMX* (496)
Adolescents:			
Age - Mean (SD), range in years	15 (2.0) 11-20 yrs.	14 (1.8) 11-18 yrs.	14 (1.9) 11-20 yrs.
Gender - male - female	48% (78) 52% (86)	44% (145) 56% (187)	45% (N=223) 55% (273)
Grade - middle school (grades 6-8) - high school (grades 9-12)	38% (62) 62 (101)	65 % (216) 35 (116)	56% (278) 44 (217)
Birthplace - U.S. - Mexico - Vietnam - Other	20% -- 79 2	98% 2 -- .6	72% 1 26 1
U.S. residence - Mean (SD), range in years	7.8 (4.8) 1-20 yrs.	13.8 (2.0) 2-18 yrs.	11.8 (4.3) 1-20 yrs.
Ethnic Identity - Vietnamese / Mexican or Chicano(a) - Vietnamese-American/ Mexican-American - Asian/Hispanic - Asian-American / Hispanic-American - Mixed (Part VN/MX) - American	67 % 21 6 2 4 1	21 % 47 16 9 6 1	37 % 38 13 6 7 .4

*** VNMX: combined Vietnamese and Mexican group**

Table 1 (cont'd).

	Vietnamese (164)		Mexican (332)		VNMX* (496)	
Parents:						
Parents' education	mo.	fa.	mo.	fa.	mo.	fa.
- ≤ elementary school	20 %	9 %	3 %	5 %	8 %	6 %
- ≤ middle school	13	7	7	7	9	7
- ≤ high school	42	33	53	59	50	50
- ≤ college	21	46	34	26	30	33
- other	6	5	3	4	4	4
Parents' birthplace (country)	mo.	fa	mo.	fa	mo.	fa
- U.S.	1 %	--	82 %	70 %	55 %	47 %
- Vietnam/Mexico	99	96	11	16	40	43
- Other	--	2	2	5	1	4
- Don't know	--	2	5	9	4	6
Years parents lived in U.S.	7 (1.4)	7 (1.3)	35 (9.5)	36 (10.6)	26 (15.0)	26 (16.0)
- Mean (SD), range in years	.5-38 yrs.	.5-38 yrs.	1-64 yrs.	1-66 yrs.	.5-64 yrs.	.5-66 yrs.
Why parents came to U.S.						
- to improve economic situation	32 %		9 %		17 %	
- reunite with family	8		5		6	
- other	17		6		10	
- political reasons	29		2		11	
- dk, NA, born here	14		78		57	
Family/housing situation:						
Parent/Guardian						
Lived w/ both mother & father	81 %		52 %		62 %	
" parent & step-parent	3		17		12	
" mother alone	3		5		4	
" father alone	10		22		18	
" adult guardians/other	4		4		4	
Percent living with extended family (in addition to living with parents or guardians)	13%		23%		20%	

Table 1 (cont'd).

	Vietnamese (164)		Mexican (332)		VNMX* (496)	
Cultural Practices & Language Use:						
Family celebrate traditional ethnic holidays						
- seldom – from time to time	24 %		39 %		34 %	
- often – always	76		61		66	
People at home speak ethnic language						
- seldom – from time to time	11 %		43 %		32 %	
- often – always	96		57		78	
Language used with parents						
- English	6 %		85 %		59 %	
- Vietnamese/Spanish	94		15		41	
Language Preference						
- English	46 %		85 %		72 %	
- Vietnamese/Spanish	54		15		28	
SES-Socioeconomic Status						
Parents employment	mo	fa.	mo.	fa.	mo.	fa.
- professional	1 %	8 %	9 %	6	7 %	6 %
- self-employed	.7	2	3	2	2	2
- labor	79	83	72	86	73	86
- unemployed	21	8	16	6	17	7
Parents working now?	mo.	fa.	mo.	fa.	mo.	fa.
- yes	78 %	83 %	78 %	85 %	78 %	84 %
- no	21	12	20	10	20	11
- don't know	1	5	2	5	2	5
Housing						
- own	23 %		64 %		51 %	
- rent	76		30		45	
- other	1		6		4	
Perception of changes in economic situation						
- better to much better	66 %		66 %		66 %	
- same	25		28		27	
- worse to much worse	9		6		7	

B. MEASURES

BACKGROUND AND CULTURAL INDICES

Background information. A questionnaire was developed to collect background information about a number of issues, including: basic demographic data; years of residence in the United States; self-perceived English and Vietnamese language ability; education and employment status of parents; perceived discrimination experiences; family structure and size; perceptions of ethnic density and resources in their various contexts. The majority of these questions were selected from the Youth Adaptation and Growth Questionnaire used by Rumbaut and Portes (1994) in their study of children of immigrants. Remaining items were constructed by the principal investigator.

The Acculturation Scale for Vietnamese Adolescents (ASVA) and the Acculturation Scale for Mexican Adolescents (ASMA). Both acculturation scales (i.e., ASVA and ASMA) were developed by the principal investigator to assess an individual's separate levels of involvement in the ethnic (Vietnamese/Mexican) and U.S. cultures (see Nguyen et al., 1999; Nguyen & von Eye, *under review*). The instrument consists of 76 items that were divided into two subscales, one measuring level of involvement in the ethnic culture (IEC), and the other, involvement in American culture (IUS). Each subscale consisted of comparable statements regarding attitudes, behaviors, and values related to a variety of domains (e.g., food, language, traditions, friendships, family expectations, etc.) pertinent to that culture. Thus, for every statement about music in the IEC subscale, there was a separate but comparable statement in the IUS subscale (e.g., "How often do you listen to Vietnamese/Mexican music?" "How often do you

listen to American music?"). Within each subscale, there were four subcategories or "life-domains:" Group Interactions, Everyday Lifestyles, Family Orientation, and Global Involvements (Nguyen & von Eye, *under review*; Nguyen et al., 1999).

Items within the subscales were chosen to depict different individualistic vs. collectivistic values of the two cultures (e.g., "I believe that I should do what is best for me." vs. "I should do what is best for my family."; "It is all right for boys/girls to choose their own career." vs. "Children should follow their parents' wishes about choosing a career."). For each item, respondents were asked to rate, on a 5-point Likert scale, the extent to which they agree with the attitude or engage in the behavior in question. Previous research with Vietnamese adolescents indicated high reliability for the ASVA, with IEC and IUS subscales showing a .92 and .90 Cronbach alpha, respectively (Nguyen et al., 1999).

Cultural Competence: Ethnic Competence, U.S. Competence. The Ethnic and U.S. Competence Indices were derived by the principal investigator to measure one's overall sense of competence in the ethnic (Vietnamese or Mexican culture) and host cultures (U.S.). Both the competence and belongingness indices (described below) were constructed specifically for this study. Each competence index is a 1-item measure in which respondents rate on a 7-point Likert scale, the extent to which they feel competent in the particular culture. Higher scores indicate greater competence. Competence was defined to participants as "being comfortable getting around in the U.S./ethnic cultures, knowing the U.S./ethnic ways, norms, and expectations, and having the necessary skills and knowledge to function in the U.S./ethnic cultures, etc.".

Cultural Belongingness: Ethnic Belongingness, U.S. Belongingness. The Ethnic and U.S. Belongingness Indices were derived by the principal investigator to measure one's overall sense of connection with people in the ethnic (Vietnamese or Mexican culture) and host cultures (U.S.). Each index is a 1-item measure in which respondents rate on a 7-point Likert scale, the extent to which they feel connected to people in the particular culture. Belongingness was defined to participants as "feeling close to or feeling a sense of relationship with those in the U.S./ethnic cultures." Higher scores indicate greater belongingness.

The Cultural Fit Scale (Fit-Environments). Designed specifically for this study, The Cultural Fit Scale measured one's overall sense of "cultural fit" in terms of competence and belongingness in different contexts. Cultural fit here, is defined as the "congruence" adolescents experience in their different environments—in terms of having the necessary skills and knowledge to function in their environments and in terms of feeling connected to the people in their environment. The scale consists of 5 items, in which students rate their sense of fit (as defined above) in their school, peer, family, Lansing and overall contexts. The higher the score, the better the fit.

The Cultural Distance Index (cultural fit, Fit-dimensions). Derived from the work of Ward & Searle (1991) and Babiker, Cox, and Miller (1980), The Cultural Distance Index also measured cultural fit. Altogether, the index consisted of 9 items in which respondents were asked to rate, on a 5-point Likert scale, the extent to which their cultural background, experiences, and practices differ from those in the mainstream U.S. culture. These ratings were based on nine, different dimensions (i.e., food, clothing, language, friendships, religions, worldviews, school values, gender roles, and family

expectations). The greater the difference, the lower the cultural fit. With this index, however, scores were reversed so that higher scores indicated greater fit.

Perceived Racial/Ethnic Discrimination. The Discrimination Scale was taken from the work of Portes and Rumbaut (1991) and Gil and Vega (1996). Altogether, it consists of 3 items in which respondents rate on a 5-point Likert scale, how often they perceive people treating them or their friends unfairly because of their ethnicity. Items include: "How often do people dislike you because you are Mexican?" "How often are you treated unfairly because you are Mexican?" "Have you seen friends treated unfairly because they are Mexican?" This scale has been used with youth many different ethnic-minority youth. Previous research with Cuban-American adolescents (Gil & Vega, 1996) and Vietnamese adolescents (Nguyen, et al., 1999) indicate a reliability of .66 and .71, respectively.

Perceived Contextual Support-U.S and Ethnic. Contextual support was measured according to students' perceptions of how much of their daily life was geared toward Anglo-American vs. Vietnamese/Mexican people. More specifically, students rated how much of the opportunities, resources, atmosphere, and people in their everyday environments were geared toward those in Anglo-American vs. Vietnamese/Mexican culture. There were 2 one-item ratings/indices altogether, one pertaining to the ethnic culture and the other to the U.S. culture. Each rating used a 7-point Likert in which higher scores indicated higher perceptions of contextual support/influences.

ADJUSTMENT INDICES.

Personal Adjustment.

The Brief Symptom Inventory (BSI). The BSI is a self-report questionnaire used to assess overall "psychological distress" or "psychological symptom pattern" (Derogatis, 1992). It consists of 53 statements in which respondents were asked to rate, on a 5-point Likert scale, the extent to which they felt distressed by various symptoms (e.g., "feeling fearful," "feeling easily annoyed," "feeling tense or keyed up") within the past 7 days. In previous research with Vietnamese adolescents (Nguyen et al., 1999), the BSI demonstrated a reliability or Cronbach alpha of .95.

Center for Epidemiological Studies Depression Scale (CES-D). The CES-D is a self-report checklist that measures psychological depression in the general population (Radloff, 1977). It consists of 20-items in which respondents were asked to rate how often they felt or behaved in a certain way in the past week. It demonstrated high internal consistency in high school students, with coefficient alphas ranging from .87 to .92 (Roberts, Andrews, Lewinsohn, & Hops, 1990). For Vietnamese adolescents in Lansing, the reliability of the CES-D was .81 (Nguyen, et al., 1999).

The Rosenberg Self-Esteem Scale. The Rosenberg Self-Esteem scale is a 10-item instrument that measures an individual's self-worth. Respondents were asked to rate on a 4-point Likert scale items such as, "I certainly feel useless sometimes." The reliability and validity of this measure have been well established (Rosenberg, 1965); its reliability was .71 for Vietnamese adolescents in Lansing (Nguyen, et al., 1999).

Satisfaction with Life Index (SWSL). The SWSL is a 7-item, 4-point Likert scale in which youth are asked to rate how content, fulfilled, or satisfied they feel about their life as a whole. It was initially developed by Huebner (1991), has good psychometric properties and is suitable for use with different age groups, including adolescents (see Terry & Huebner, 1995; Diener, Emmons, Larsen, & Griffin, 1985; Neto, 1993; Pavot & Diener, 1993). Sample items include: "My life is going well." "I have a good life." "I wish I had a different life." Higher scores indicate higher life satisfaction.

Disposition Toward Delinquency. Taken from the Gil and Vega's work (1996), this index consists of 7 items in which youth rate, on 4-point Likert scale, the extent to which they agree with various attitudes and behaviors associated with delinquency. Sample items include: "It is important to try to follow rules and obey the law." "It is okay to steal a bicycle if one can do it without getting caught." "The kids that mess around with the law seem to be better off than those that always follow the law." Higher scores indicate a stronger disposition toward delinquency.

Interpersonal adjustment.

Parent/family relations. The parent/family relations measure was taken from Youth Adaptation and Growth Questionnaire—Rumbaut and Portes (1994) employed in their study of immigrant children. The measure is a 9-item, 4-point Likert scale, which measures the quality of relationships respondents reported having with their parents and family members. Sample items include: "My parents do not like me very much." "Family members feel very close to each other." For Vietnamese adolescents in Lansing, the reliability of this measure was .87 (Nguyen, et al., 1999)

Teacher Relations and Peer Relations. The surveys of teacher and peer relations were revised from several measures—Gil and Vega's (1996) Teacher Derogation scale and Rumbaut and Portes (1994) family scale. The items and format of the Teacher and Peer Relations Scales were similar to those in the family scale described above (9-item, 4-point Likert scale). The only difference was that items focus on the quality of relationships with teachers or friends (instead of family).

Academic Adjustment

School G.P.A., and Math and Reading Scores. Math and reading scores as well as cumulative grade-point averages (GPA) were obtained from The Lansing Research Office and used as indices of academic adjustment. The math and reading scores were scores on a state-wide, standardized achievements test (i.e., Michigan Achievement Test—MAT) all students within the Lansing School District were required to take.

Academic/educational Aspirations. Taken from the Youth Adaptation and Growth Questionnaire (Rumbaut & Portes, 1994), this index measures the importance and likelihood youth place on their academic achievement. It is an 8-item, 5-point Likert scale that asks questions such as "How important is it to you to receive a college education?" "How likely is it that you will receive good grades in school?" "How important is it to you study hard before a test?" Higher scores on this scale indicate higher aspirations.

Time spent on homework. Also taken from the Youth Adaptation and Growth Questionnaire (Rumbaut & Portes, 1994), this one-item index measures the amount of time students spend doing homework each week. Response options range from 0 to 10+ hours/week. Higher scores indicate more time doing homework.

CHAPTER 3: RESULTS

RELIABILITY OF MEASURES.

Table 2 lists the reliabilities of all the measures—for the Vietnamese, Mexican and combined (Vietnamese and Mexican) groupings. Generally, all the measures demonstrated high internal consistency, with the lowest standardized alpha being .72 and the highest being .97.

With respect to The Acculturation Scale, both IEC and IUS subscales demonstrated strong internal consistency (.89 and .88, respectively). Furthermore, the correlations between IEC and IUS for the Vietnamese, Mexican and combined groups were: -.28 ($p < .01$), -.05 (p = n.s.), and -.12 ($p < .01$), respectively. (See Table 3).

VALIDITY OF THE ACCULTURATION SCALE.

Criterion validity for the acculturation subscales were relatively high. (See Table 4). The zero-order correlation between IEC and Spanish/Vietnamese Language (derived from an average in self-reported skills of reading, writing, speaking and understanding Spanish or Vietnamese) was .35 ($p < .01$) while the correlation between IEC and Global Involvement-EC (a separate one item rating of overall involvement in the Vietnamese/Mexican culture) was .60 ($p < .001$). Additionally, the correlation between IEC and Global Importance-EC (a separate one item rating of how important the Vietnamese/Mexican culture is to the youth) was .54 ($p < .001$). Also note that ethnic group membership moderated how overall importance of ethnic identity and celebration of holidays predicted IEC—predictions were significant and positive only for the Mexican group ($p < .05$).

Similarly, correlations between the IUS and its corresponding variables were also high and consistent with expected demographic variables. The correlations between IUS and: English Language, Years of U.S. Residence, Years of U.S. Education, and Global Ratings of U.S. Involvement and U.S. Importance, for example, all ranged between .16 and .49, ($p < .01$). See Table 4 for a complete listing of the zero-order and partial correlations between the acculturation subscales and their corresponding, demographic variables—arranged according to the Vietnamese, Mexican and combined (Vietnamese and Mexican) groupings. Also note that ethnic group membership moderated how age starting U.S. schools predicted IUS; prediction was negative and significant only for the Vietnamese group ($p < .05$). Overall, correlations between the three groupings were similar. However, the groups did differ in IUS's links with U.S. residence and age starting U.S. schools (i.e., these correlations were significant for the Vietnamese but not the Mexicans). Since the majority (98%) of Mexicans were born in the U.S. and started school around the same time as each other, the lack of significance (for the Mexicans) may be due more to a restriction in range rather than a lack of validity.

VALIDITY OF OTHER CULTURAL MEASURES.

See Table 5 for a list of the cultural variables and their associations with expected, demographic variables. To facilitate communication, only correlations that were significant and that were substantively or conceptually related to the scales were presented. In general, the cultural indices demonstrated good criterion validity, as they related to many of the expected variables.

Cultural Fit. Compared to those with less fit, adolescents who reported greater cultural fit with their context were more likely to be born in the United States, to have lived in the U.S. and attended American schools for longer, and to have arrived to the U.S. and started U.S. schools at a younger age. As expected, they also reported a greater sense of value and involvement in the American culture and, conversely, a diminished sense of value and involvement in their ethnic culture. Furthermore, they reported less feelings of isolation overall, demonstrated less fluency in their ethnic language, and placed less importance or desire in having a context geared toward their ethnic group (Vietnamese/Mexican people).

U.S. competence and U.S. belongingness. Like youth reporting greater cultural fit, those reporting a greater sense of U.S. competence and belongingness were more likely to be born in the United States, to have lived and attended schools in the U.S. for longer, and to have entered the U.S. and started American schools at a younger age (than those with less U.S. competence and belongingness). As expected, these students also demonstrated more fluency in English, possessed a greater proportion of American friends, and were more likely to value and participate in the U.S. culture. They were also less isolated from American people and less fluent in their ethnic language.

Ethnic competence and Ethnic belongingness. Youth who reported a greater sense of ethnic competence and belongingness possessed greater fluency in Vietnamese or Spanish, spoke their ethnic language more frequently, and celebrated traditional ethnic (Vietnamese/Mexican) holidays with their families more often. Furthermore, they were more likely to have friends of the same ethnicity, to value and participate in their ethnic culture, and to place an importance in their ethnic identity and in having a context that is geared more toward people in their ethnic group.

Contextual Perceptions (Perceptions of U.S. or ethnic resources in context).

Youth who reported or perceived their daily environments to be primarily "American" reported a greater proportion of Anglo-Americans in their different contexts—i.e., of the people working in their school, of the kids in the school, of all their friends, and of the people in Lansing.

Similarly, those who reported or perceived their daily environments to be primarily "Vietnamese or Mexican" reported a greater proportion of Vietnamese or Mexicans in their different contexts—i.e., of the people working in their school, of the kids in the school, of all their friends, and of the people in Lansing. In addition, these youth demonstrated greater fluency in their ethnic language, spoke their ethnic language more frequently, placed more importance in their ethnic identity, and were more likely to value and participate in their ethnic culture.

RELATIONSHIP BETWEEN THE SCALES

See Table 6 for correlations of all the adjustment indices and Table 7 for correlations of all the cultural/predictor variables (i.e., acculturation, cultural fit, cultural competence and belongingness and perceptions of cultural resources in the context). Overall, the magnitude of these correlations ranged between .00 to .71, with varying directions and significance levels. For the most part, however, the adjustment indices related with each other and the cultural variables related with each other in the predicted direction.

Table 2: Scale Reliabilities

Scale	Items #	Vietnamese	Mexican-American	VNMX
Personal Adjustment				
Symptomatology	53	.97	.98	.97
Depression	20	.86	.89	.88
Self-esteem	10	.82	.80	.82
Life satisfaction	7	.78	.84	.83
Delinquency	7	.69	.72	.72
Interpersonal Adjustment				
Family relationships	12	.86	.87	.87
Peer relationships	12	.88	.87	.88
Teacher relationships	7	.79	.87	.86
Academic Adjustment				
Academic aspirations	8	.84	.86	.86
Cultural fit & discrimination				
Cultural fit in overall environments	5	.81	.75	.78
Cultural fit in specific dimensions	9	.74	.89	.87
Discrimination	3	.83	.88	.87
Acculturation				
IEC	38	.90	.89	.89
IUS	38	.88	.89	.88

Table 3: Correlations of Acculturation Dimensions

Ethnic Groupings

	vn	mx	vnmx
IEC – IUS	-.28 **	-.05	-.12 ** [a]

vnmx-combined groups, vn-Vietnamese sample, mx-Mexican sample
IEC – Involvement in ethnic culture, IUS – Involvement in U.S. culture,
[a] IEC–IUS link for vnmx is moderated by ethnic group
(but correlation is same when controlling for ethnic group);
** $p < .01$

Table 4: Criterion Validity for Acculturation Subscales ~ IEC and IUS

Criterion	I E C Subscale					
	Vietnamese		Mexican		VN & MX	
	Zero-order Correlations	Partial Correlations	Zero-order Correlations	Partial Correlations	Zero-order Correlations	Partial Correlations
Ethnic Language	.41**	.36**	.39**	.39**	.35**	.34**
Ethnic Language in home	-.10	-.09	-.17**	-.16**	-.13**	-.11**
Overall Importance of EI [c]	.10	.09	.38**	.38**	.27**	.26**
Overall Importance—EC	.48**	.46**	.56**	.56**	.54**	.53**
Overall Involvement—EC	.53**	.50**	.64**	.64**	.60**	.59**
Celebration of ethnic holidays [d]	.01	.04	.36**	.36**	.24**	.23**
Importance of ethnic context [b]	.41**	.38**	.30**	.30**	.34**	.33**

[a] IEC– Involvement in ethnic culture; IUS– Involvement in U.S. culture. [b] How important it is to participants that their daily environment is geared to Vietnamese/Mexican people. [c] ethnic group membership moderated how these criterion variables predicted IEC for the vnmx correlation ($p < .01$). [d] ethnic group membership moderated how these variables predicted IUS for the vnmx correlation ($p < .05$). [e] Point-biserial correlation between birthplace and IUS. * $p < .05$, ** $p < .01$

Table 4 (cont'd).

I U S Subscale

Criterion	Vietnamese		Mexican		VN & MX	
	Zero-order correlations	Partial correlations	Zero-order correlations	Partial correlations	Zero-order correlations	Partial correlations
Birthplace [c] (1=VN/MX, 2=US)	-.08	-.04	-.06	-.06	-.16**	-.16**
Age came to U.S.	-.28**	-.22**	-.68*	-.71 [d] (p=.058)	-.31**	-.30 **
U.S. Residence (years)	.22**	.14*	.04	.04	.18**	.18**
Age started U.S. schools [d]	-.26**	-.19**	.04	.04	-.18**	-.18**
Years in US schools	.21**	.13*	.04	.04	.16**	.16**
English Language	.37**	.30**	.12*	.12**	.27**	.25**
Overall Importance—US	.38**	.36**	.53**	.53**	.47**	.47 **
Overall Involvement—US	.45**	.41**	.50**	.50**	.49**	.48 **

[a] IEC– Involvement in ethnic culture; IUS– Involvement in U.S. culture. [b] How important it is to participants that their daily environment is geared to Vietnamese/Mexican people. [c] ethnic group membership moderated how these criterion variables predicted IEC for the vnmx correlation ($p < .01$). [d] ethnic group membership moderated how these variables predicted IUS for the vnmx correlation ($p < .05$). [e] Point-biserial correlation between birthplace and IUS. * $p < .05$, ** $p < .01$

Table 5: Criterion Validity for Predictor Variables (zero-order correlations)

Criterion	Cultural Fit		Cultural Competence		Cultural Belongingness		Contextual Perceptions	
	Specific dimensions	Overall environment	Ethnic competence	U.S. competence	Ethnic belongingness	U.S. belongingness	Ethnic resources	U.S. resources
Birthplace (1=VN/MX, 2=US)	.27**	.25**		.19*		.10*		
Years of U.S. residence	.23**	.24**		.23**		.12**		
Years in U.S. schools	.19**	.19**		.22**		.14**		
Age first came to U.S.	-.31**	-.21**		-.41**		-.21**		
Age started U.S. schools	-.28**	-.26**		-.25**		-.14**		
U.S. Language	.28**	.32**		.33**		.19**		
Ethnic Language	-.37**	-.14**	.13**	-.19**	.16*	-.10*	.12**	
Speak ethnic language at home (1=no, 2=yes)	-.20**		.09*		.11**		.10*	
How often speak Vietnamese/Spanish at home	-.39**	-.13**	.13**	-.17**	.09*	-.09*	.15**	
Celebrate Vietnamese/Mexican holidays	-.23**		.13*	-.09*	.12**			
Overall Importance of American culture	.11**	.19**		.27**		.21*		.09*
Overall Involvement in American culture	.17**	.21**		.29**		.31**		.09*
Overall Importance of ethnic culture	-.20**		.29*		.31**		.17**	
Overall Involvement in ethnic culture	-.25**		.39**		.35**		.33**	
Importance of Ethnic Identity			.20**		.25**		.09*	
Important that context is geared more to vn/mx people	-.15**		.29**		.35**		.37*	
Feel isolated from Vietnamese/Mexican people	-.14**	-.10*	-.12**		-.10*			
Feel isolated from Caucasian people	-.16**			-.11**	.11*	-.24**		
Proportion of Caucasian people working in school								.24**
" kids in school								.17**
" friends		.17**		.26**		.28**		.24**
" people in Lansing								.23**
Proportion of VN/MX people working in school							.15**	
" kids in school							.20**	
" friends	-.15**		.29**		.29**		.29**	
" people in Lansing							.26**	

* $p < .05$, ** $p < .01$; [b] Point-biserial correlation between birthplace and IUS.

Table 6: Correlations of Adjustment Variables

	sx	dep	se	ls	dq	family	peer	tchr	gpa	math	read	acad	hmwk
distress-sx	——												
depression	.70**	——											
self-esteem	-.45**	-.55**	——										
life-satisfaction	-.47**	-.59**	.42**	——									
delinquency	.18**	.24**	-.19**	-.26**	——								
family	-.31**	-.31**	.27**	.43**	-.19**	——							
peer	-.31**	-.25**	.37**	.24**	-.14**	.40**	——						
teacher	-.26**	-.25**	.11**	.32**	-.31**	.41**	.29**	——					
gpa	-.07	-.18**	.04	.18**	-.36**	.07	-.03	.28**	——				
math	-.08	-.18**	.27**	.08	-.25**	-.08	.08	.01	.52**	——			
read	-.14**	-.21**	.36**	.07	-.22**	-.09	.20**	-.06	.36**	.71**	——		
aspirations	-.14**	-.18**	.17**	.25**	-.49**	.25**	.15**	.37**	.46**	.17**	.12**	——	
homework	.03	-.05	.00	.03	-.22**	.04	-.09**	.21**	.38**	.27**	.07	.31**	——

distress (sx) - distress or symptomatology, dep-depression, se-self-esteem, ls-life-satisfaction, dq-delinquent attitudes, family-family relations, peer-peer relations, teacher-teacher relations, gpa-school gpa, math-metropoplitan achievement test (mat) math score; read-mat reading score, acad-academic aspirations, hmwk-time spent on homework
* $p < .05$ level, ** $p < .01$ level, (1-tailed tests).

Table 7: Correlations of Predictor Variables

	IEC	IUS	c. fit-1	c. fit-2	ethnic comp	ethnic belong	U.S. comp	U.S. belong	ethnic context	U.S. context
IEC	——									
IUS	-.12**	——								
cultural fit-specific (1)	-.38**	.27**	——							
cultural fit-overall (2)	.01	.32**	.17**	——						
ethnic competence	.33**	-.09*	-.17**	.11**	——					
ethnic belongingness	.31**	-.04	-.11**	.17**	.48**	——				
U.S. competence	-.16**	.36**	.25**	.32**	.05	.05	——			
U.S. belongingness	-.16**	.32**	.27**	.25**	.05	.19**	.42**	——		
ethnic context	.35**	-.10*	-.12**	.09*	.26**	.25**	-.07	.01	——	
U.S. context	-.02	.15**	-.00	.10*	.01	.02	.10*	.17**	-.14**	——

IEC-involvement with ethnic culture, IUS-involvement with U.S. culture, cultural fit 1-cultural fit on specific dimensions, cultural fit 2 – overall cultural fit in different environments, ethnic comp-ethnic competence, ec.belong-ethnic belongingness, us.comp-U.S. competence, us.belong-U.S. belongingness, ethnic context-perceptions of ethnic resources in context, U.S. context-perceptions of U.S. resources in context. * $p < .05$ level, ** $p < .01$ level, (1-tailed).

RESULTS: Hypotheses

I. Hypotheses 1: Ethnic group differences

Findings (via t-tests, ANOVA, and regression analyses) demonstrated that there were significant ethnic-group differences in cultural fit, discrimination, and adjustment. Compared to Vietnamese peers, Mexican students reported doing better in personal (i.e., depression, symptomatology, self-esteem, and life-satisfaction) and interpersonal domains of adjustment (i.e., family and peer relationships), though depression was only marginally significant ($p=.07$). In addition, Mexican students reported fewer experiences of discrimination and a greater sense of cultural fit with their context. (See Table 8)

Despite reporting better personal and interpersonal adjustment, however, Mexicans students also reported doing worse in their relations with teachers, in their disposition to delinquency, and in several indices of academic functioning (i.e., school GPA, math scores, academic aspirations, and time spent on homework).

In sum, then, H1a was supported. Mexican students reported a greater sense of cultural fit (on both fit-dimensions and fit-environments indices) than their Vietnamese counterparts. H1b was not supported. In fact, the opposite was true/found: Vietnamese students perceived and/or experienced greater discrimination than Mexican peers. H1c was mostly supported. The Mexican students reported a greater sense of personal (i.e., lower distress, higher self-esteem, and life-satisfaction) and interpersonal adjustment (i.e., stronger family and peer relations) than Vietnamese students. They also reported somewhat lower depression; however, this finding was only marginally significant. H1d was mostly supported. The Vietnamese group scored higher on all but one of the academic indices. More specifically, they had better school GPA's, better math scores,

and higher academic aspirations. Additionally, they spent more time on their studies every week and reported better relationships with their teachers overall. The Vietnamese students were also less likely to endorse delinquent attitudes. The only academic index that was not significant was the reading score—where means for the two ethnic-groups were comparable.

Table 8: H1- Ethnic group differences in cultural fit, discrimination, and adjustment.

Index	Group Differences		Likert scale	Vietnamese means	Vietnamese sd	Mexican means	Mexican sd
Cultural fit & discrimination	anova & t-test						
fit-specific dimensions	F (1,494) = 48.85***		1-5	2.53	.75	3.18	1.07
fit-overall environments	F (1,494) = 28.40***		1-7	5.37	1.06	5.85	.88
discrimination	F (1,494) = 21.62***		1-5	2.35	.90	1.92	.99
Personal adjustment	regressions	anovas					
symptomatology	**	**	1-5	1.94	.69	1.72	.71
depression	p=.07	p =.06	1-4	1.82	.45	1.72	.53
self-esteem	***	***	1-4	2.95	.46	3.20	.49
life satisfaction	***	***	1-4	2.77	.55	3.02	.66
delinquency attitudes	**	**	1-4	1.48	.45	1.62	.54
Interpersonal adjustment							
family relationships	***	***	1-4/5	3.31	.55	3.55	.56
peer relp.	***	***	1-4	3.30	.56	3.64	.50
teacher relp.	**	**	1-4	3.22	.51	3.06	.72
Academic adjustment[c]							
gpa	***	***	0-4	2.99	.94	2.21	.88
mat.math[a] (mean score & percentile)	***	***	445 - 835	659 (53%)	40.28 (31%)	637 (37%)	32.51 (27%)
mat.reading[b] (mean score & percentile)	—	—	442 - 854	640 (28%)	37.57 (36%)	644 (33%)	33.80 (23%)
academic aspirations	***	**	1-5	4.25	.65	4.06	.73
homework	***	***	0-6	3.44	1.56	2.35	1.29

$p < .05$, ** $p < .01$, *** $p < .001$; a = 29% of Vietnamese students vs. 11% of Mexican students scored in the 80% or above in math; 53% of Vietnamese students vs. 30% of Mexican students scored at or above the 50% percentile (national norms). b = 8% of Vietnamese students vs. 5% of Mexican students scored in the 80% or above in reading; 19% of Vietnamese students vs. 24% of Mexican students scored at or above the 50% percentile (national norms); note: ethnic group differences became significant when English proficiency was covaried out * Mexicans had better reading scores. c = ethnic group differences in academic adjustment persisted even when controlling for SES; MX group had higher SES than VN overall.

II. Hypotheses 2: Acculturation, adjustment and cultural fit.

Plan of analyses for H2abc.

For Hypotheses H2a, b, and c, multiple regressions were used to examine the magnitude and direction with which ethnic group membership (EG) and acculturation dimensions (IEC, IUS) predicted various indices of adjustment—both independently and in interaction with each other (cf. Aiken & West, 1991). In the first block, adjustment was regressed on these three variables—i.e., EG, IEC, and IUS; in the second block, on their two-way interactions (EG * IEC, EG * IUS, IEC * IUS); and in the third block, on their three-way interactions (EG * IEC * IUS).

H2a: IUS and adjustment ~ mostly supported.

Findings indicated that there were significant acculturation-adjustment links for both ethnic groups. Adolescents who were more involved in the U.S. culture (IUS) were more adjusted overall—across personal (i.e., self-esteem, life-satisfaction, and disposition to delinquency), interpersonal (i.e., family, peer, and teacher relations), and academic domains of adjustment (i.e., school gpa, reading scores, and academic aspirations). (See Table 9).

Findings, however, did not indicate any predictive links between IUS and symptomatology, depression, or math scores (as initially predicted). These associations had low and non-significant Betas.

H2b: IEC and adjustment ~ mostly supported.

In contrast to IUS findings, adolescents who were more involved in the ethnic culture (IEC) reported more mixed functioning (as predicted). Compared to those who were less involved, these students reported doing better in terms of family relationships and academic aspirations (i.e., stronger family relations, higher academic aspirations) but worse, in terms of depression, symptomatology, and math and reading scores (i.e., higher levels of depression and symptomatology and lower scores in math and reading). (See Table 9.)

H2c: Ethnic group will moderate acculturation-adjustment links ~ partly supported.

In addition to overall effects (noted above), findings also indicated that ethnic-group membership (either Vietnamese or Mexican) moderated several links between acculturation and adjustment. More specifically, it moderated relationships between: IEC and family relations, IUS and family relations, and IUS and peer relations. Ethnic-group membership also moderated relationships between: IUS and depression, IUS and self-esteem, IEC and math scores, and IEC and reading scores; this latter set of moderated links, however, were only marginally significant. (See Tables 9 - 13.)

To delineate how ethnic group moderated acculturation-adjustment links, regressions were conducted separately for each ethnic groups. Overall, results indicated that: (1) Vietnamese youth had stronger acculturation-adjustment links than did Mexican peers and (2) that with the exception of IEC's link with math and reading scores, acculturation was linked to more positive adjustment overall for the Vietnamese group. More precisely, the links between: IEC and math scores(-), IEC and reading scores(-), IEC and family relations(+), IUS and depression(-), IUS and self-esteem(+), and IUS and

family relations(+) were consistently stronger for the Vietnamese group (i.e., the Betas for the Vietnamese group were of a greater magnitude, indicating more positive adjustment overall). The direction of each association is noted in parentheses. (See Tables 10-13).

Furthermore, in interactions that were initially, marginally significant (See Table 9), posteriori analyses demonstrated that the Vietnamese group had the significant acculturation-adjustment links and the Mexican group had the marginally or non-significant ones (e.g., IUS-depression, IEC-math scores, IEC-reading scores. (See Tables 12 and 13).

Finally, as a side note, there were several significant two-way interactions between IEC and IUS on adjustment (see Appendix A, pg. 134), and no significant three-way interactions between Ethnic Group, IEC, and IUS on adjustment. Results of the acculturation-adjustment links for the Vietnamese and Mexican groups are listed, respectively, in Tables 10 and 11.

Table 9

H2ab: Multiple Regression Results Examining Links between Ethnic Group, Acculturation Subscales, and Adjustment Indices

	Ethnic Group and Acculturation Subscales as Predictors								
	Ethnic Group		IEC		IUS		2-way interactions		
Adjustment Index	**Beta**	**F**	**Beta**	**F**	**Beta**	**F**	**iecxius**	**iecxeg**	**iusxeg**
Personal adjustment									
symptomatology	- .14	10.50**	.17	14.98***	.07	2.53			
depression	- .08	3.20	.14	10.18**	- .07	2.59	*		p=.07
self-esteem	.22	25.10***	- .08	3.46	.20	16.73***	**		p=.10
life satisfaction	.16	12.89***	- .02	.20	.17	14.67***			
delinquency attitudes	.15	11.70**	.01	.04	- .18	16.48***	p=.07		
Interpersonal adjustment									
family relationship	.18	16.16***	.20	21.62***	.15	11.29**		*	*
peer relationships	.25	35.88***	.04	.76	.28	45.16***			**
teacher relationships	- .14	10.18**	.07	2.16	.20	19.18***	*		
Academic adjustment									
gpa	- .40	86.68***	- .06	1.82	.20	20.25***	*		
mat: math	- .29	30.58***	- .17	9.86**	.06	1.10	***	p=.09	
mat: reading	.03	.37	- .20	12.96***	.12	4.28**	***	p=.06	
academic aspirations	- .17	15.05***	.12	8.12**	.28	39.31***	*		
homework	- .36	68.72***	- .04	1.08	.07	2.43			

*p < .05, **p < .01, ***p < .001

Table 10

Regression Results: Links between Acculturation and Adjustment (for Vietnamese group)

	Acculturation Subscales as Predictors				
	IEC		IUS		2-way inrxns
Adjustment Index	**Beta**	**F**	**Beta**	**F**	**iec * ius**
Personal adjustment					
symptomatology	.21	7.08**	-.18	5.15*	.11
depression	.08	1.12	-.25	9.61**	2.76
self-esteem	-.07	.81	.35	20.34***	6.66**
life satisfaction	.04	.29	.26	10.18**	.03
delinquency attitudes	.00	.00	-.17	4.37*	2.86
Interpersonal adjustment					
family relationship	.37	24.21***	.29	14.29***	.48
peer relationship	.01	.01	.44	34.57***	.85
teacher relationship	.09	1.28	.24	8.70**	.30
Academic adjustment					
gpa	-.09	1.10	.17	3.69 [c]	5.76*
mat: math	-.30	8.41**	.02	.04	7.78**
mat: reading	-.35	13.03**	.17	3.03	2.28
academic aspirations	.11	2.13	.37	23.43***	.16
homework	.02	.05	.12	2.22	.46

*p < .05, ** p < .01, *** p < .001, [c] p=.056

Table 11

Multiple Regression Results: Links between Acculturation and Adjustment (for Mexican group)

	Acculturation Subscales as Predictors				
	IEC		IUS		2-way inrxns
Adjustment Index	**Beta**	**F**	**Beta**	**F**	**iec * ius**
Personal adjustment					
symptomatology	.14	6.86**	-.02	.14	.86
depression	.15	7.84**	-.01	.05	2.69
self-esteem	-.07	1.80	.14	6.40**	1.93
life satisfaction	-.04	.58	.15	7.08**	.03
delinquency attitudes	.02	.08	-.19	11.97**	1.19
Interpersonal adjustment					
family relationship	.14	6.50**	.10	3.53 [c]	.03
peer relp.	.08	2.25	.22	16.00***	.30
teacher relp.	.06	1.10	.19	11.56**	1.88
Academic adjustment					
gpa	-.07	1.37	.23	17.47***	1.56
mat: math	-.11	2.92	.07	1.17	10.96**
mat: reading	-.12	3.17	.08	1.32	22.37***
academic aspirations	.14**	6.71**	.23	18.58***	4.84*
homework	-.09	2.07	.05	.86	.81

*$p < .05$, ** $p < .01$, *** $p < .001$, [c] $p = .056$

Table 12:

H2c Overview - Acculturation and adjustment, moderated by ethnic group membership

	Beta	F
significant:		
• iec – family relations	-.82	5.11 *
• ius – family relations	-.86	3.96 *
• ius – peer relations	-1.16	7.90 **
marginally significant:		
• ius – depression	.80	3.28 $p = .07$
• ius – self-esteem	-.71	2.79 $p = .09$
• iec – math scores	.70	2.82 $p = .09$
• iec – reading scores	.82	3.65 $p = .06$

Table 13: H2c - Interactions ~ Acculturation-adjustment, by ethnic group

IEC--adjustment links		Beta	F
• iec – family relations	INRXN	-.82	5.11 *
	VN	.37	24.21 ***
	MX	.14	6.55 **
• iec – math scores	INRXN	.70	2.82 p=.09
	VN	-.30	8.41 **
	MX	-.11	2.76 p=.10
• iec – reading scores	INRXN	.82	3.65 p=.06
	VN	-.35	12.82 **
	MX	-.12	3.03 p=.08

IUS--adjustment links		Beta	F
• ius – depression	INRXN	.80	3.28 p=.07
	VN	-.25	9.61 **
	MX	-.01	.05
• ius – self-esteem	INRXN	-.71	2.79 p=.09
	VN	.35	20.34 ***
	MX	.14	6.40 *
• ius – family relations	INRXN	-.86	3.96 *
	VN	.29	14.29 ***
	MX	.10	3.57 p=.06
• ius – peer relations	INRXN	-1.16	7.90 **
	VN	.44	34.57 ***
	MX	.22	16.00 ***

INRXN: Two-way interaction term between IUS/IEC and adjustment (moderated by ethnic group)
VN/MX: Simple Effects for the Vietnamese or Mexican sample.

H2e: Cultural fit and adjustment ~ supported.

Plan of analyses: To determine the impact of cultural fit on adjustment and to account for multicollinearity, adjustment was regressed on two different indices of fit (i.e., fit-dimensions and fit-environment) in the same equation. It may be worthy to note that, although they both measure cultural fit, fit-dimensions and fit-environment are somewhat different. Fit-environment measures one's sense of fit overall in different environments, while fit-dimensions measures one's sense of fit on specific dimensions (e.g., food, music, worldviews). There is a positive but small correlation between the two ($r = .17$, $p < .01$).

Findings. Overall, findings indicated that cultural fit predicted positive adjustment on most of the indices measured. With regard to personal adjustment, both cultural fit indices predicted better adjustment in symptomatology, depression, self-esteem, and life-satisfaction. With regard to interpersonal adjustment, fit-environment predicted better peer, teacher, and family relations and fit-dimensions predicted better peer relations. Finally, with regard to academic adjustment, fit-environment predicted higher academic aspirations and fit-dimensions predicted higher reading scores.

In sum, cultural fit predicted better functioning on all the adjustment indices measured, except for disposition to delinquency and time spent on homework (for which there were no significant relationships). Additionally, while both cultural fit indices predicted the same indices in personal adjustment, fit-environments predicted family relations, teacher relations and academic aspirations where fit-dimensions did not, and conversely, fit-dimensions predicted reading skills where fit-environments did not. (See Table 14.)

H2d: Cultural fit as mediators to links between acculturation and adjustment

Plan of analyses: The mediational model was examined according to the procedures—i.e., three regressions equations or conditions—delineated by Baron and Kenny (1986). As they instructed, "to establish mediation, the following conditions must hold: First, the independent variable must affect the mediator in the first equation; second, the independent variable must be shown to affect the dependent variable; and third, the mediator must affect the dependent viable in the third equation. If these conditions all hold in the predicted direction, the effect of the independent viable on the dependent variable must be less in the third equation than in the second (Baron & Kenny, 1986, p. 1177)."

Hence, in the first equation, cultural fit—i.e., fit-dimensions and fit-environments indices (mediator) were regressed on acculturation—i.e., IEC and IUS dimensions (IV). In the second equation, adjustment (DV) was regressed on cultural fit (mediator). And in the third equation, adjustment (DV) was regressed on cultural fit (mediator) and acculturation (IV). To clarify, both fit indices (fit-dimensions, fit-environments) were entered in the same equations just as both acculturation dimensions (IEC, IUS) were entered in the same equations (when they were predictors), with a total of two predictors in the first equation (i.e., IEC, IUS), two predictors in the second equation (i.e., fit-dimensions, fit-environments), and four predictors in the third equation (i.e., IEC, IUS, fit-dimensions, fit-environments). Mediation models that were significant are depicted in Figures 1 and 2.

IUS-adjustment links. To summarize, cultural fit significantly mediated links between IUS and: symptomatology, depression, self-esteem, life satisfaction, family relations, peer relations, teacher relations, reading scores, and academic aspirations. Both fit indices were significant mediators for most of the adjustment indices (as listed above), except for teacher relations and academic aspirations (which were mediated by fit-environments only) and for reading skills (which was mediated by fit-dimensions only). (See Figure 1).

IEC-adjustment links. Cultural fit also mediated links between IEC and adjustment. However, it did not mediate as many links as it did with IUS and adjustment—since only fit-dimensions mediated relationships between IEC and symptomatology and IEC and depression. Fit-environments was not a significant mediator, primarily because it was not significantly linked to IEC (i.e., condition one did not hold). (See Figure 5).

Table 14

H2e Multiple Regression Results ~ Cultural Fit as predictors to Adjustment

	Cultural Fit indices as Predictors				
	Fit-environments		Fit-dimensions		
Adjustment Index	Beta	F	Beta	F	R
Personal adjustment					
symptomatology	-.19	20.07***	-.23	28.62***	.33***
depression	-.25	32.72***	-.20	20.88***	.34***
self-esteem	.34	66.10***	.18	18.06***	.41***
life satisfaction	.29	47.61***	.19	19.62***	.37***
delinquency attitudes	-.07	2.46	.00	.00	.07
Interpersonal adjustment					
family relationship	.24	29.38***	.06	1.74	.26***
peer relp.	.27	40.58***	.17	15.44***	.35***
teacher relp.	.14	9.73**	.04	.66	.15**
Academic adjustment					
gpa	-.03	.36	.04	.64	.04
mat: math	-.04	.59	.02	.07	.04
mat: reading	-.01	.01	.22	14.98***	.21**
academic aspirations	.20	18.84 ***	-.04	.96	.19***
homework	-.09	3.57 [c]	-.07	2.02	.12*

* $p < .05$, ** $p < .01$, *** $p < .001$, [c] $p = .06$

Figure 4: Cultural fit as mediators to links between IUS and adjustment

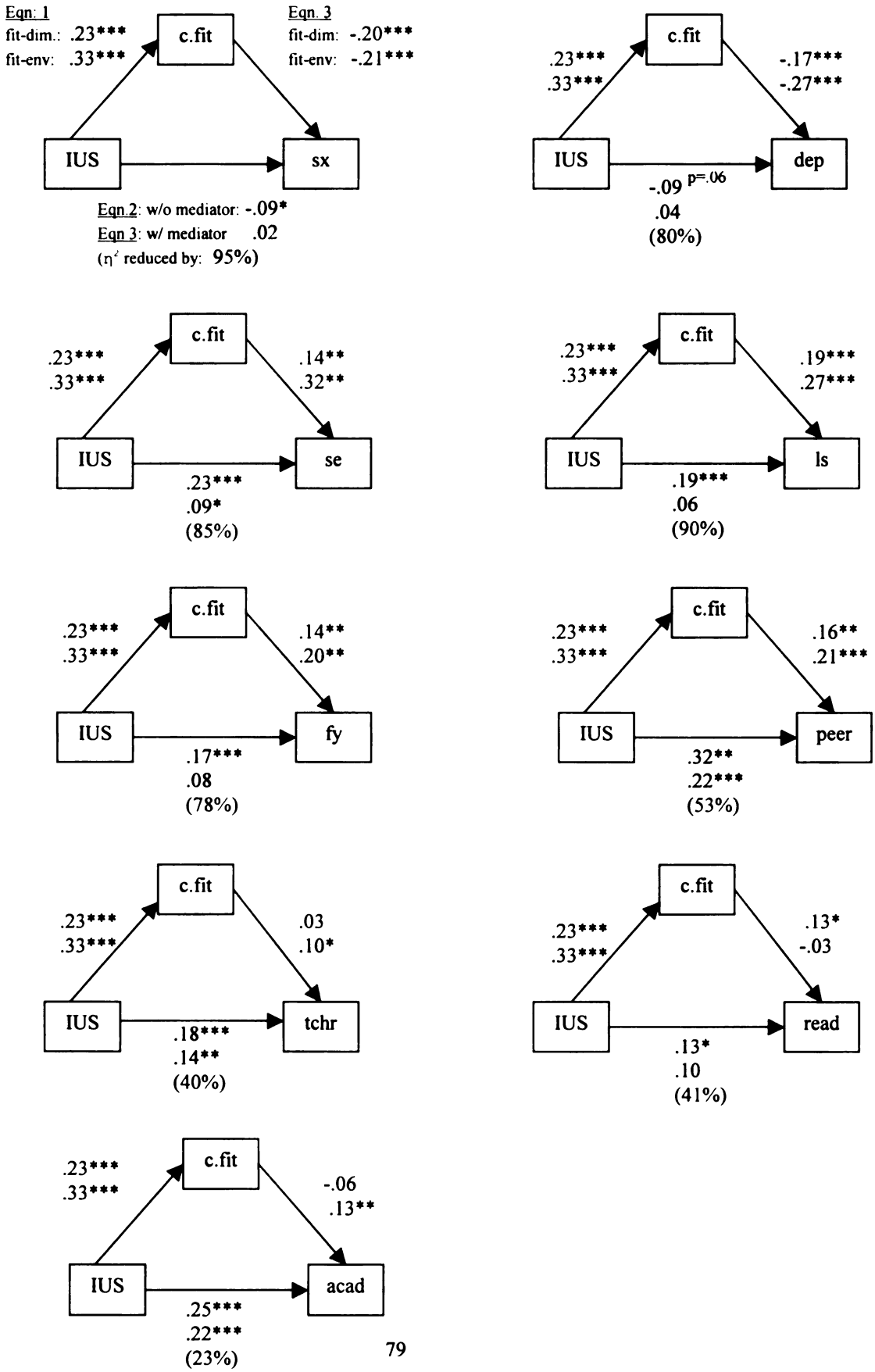
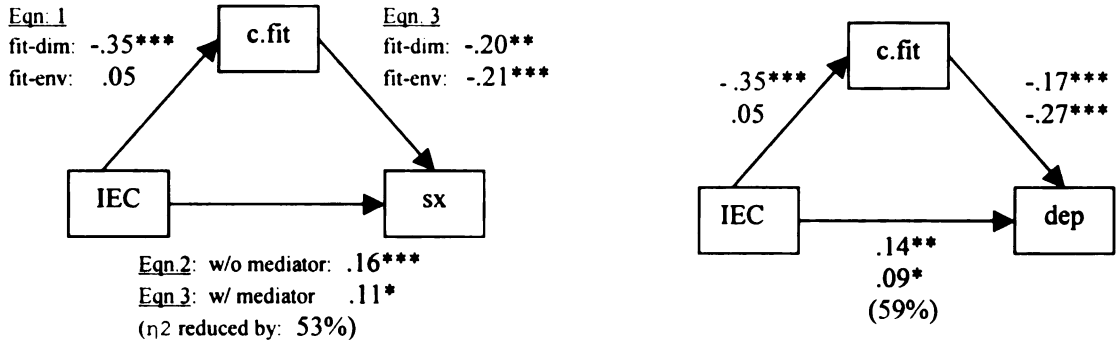


Figure 5: Cultural fit as mediator to links between IEC and adjustment



III. Hypotheses 3: Competence, Belongingness, and Contextual Perceptions.

H3ab: Acculturation's link to competence and belongingness ~ supported.

Plan of analyses: To examine acculturation's link to competence and belongingness, (1) ethnic competence, (2) ethnic belongingness, (3) U.S. competence, and (4) U.S. belongingness were regressed on the acculturation subscales (IEC and IUS). Four separate regressions were conducted in total.

Findings: As predicted, findings indicated that youth who were more involved in the ethnic culture (IEC) reported a greater sense of competence and belongingness in their ethnic culture (than peers who were less involved). Similarly, youth who were more involved in the U.S. culture (IUS) reported a greater sense of competence and belongingness in the American culture. (See Table 15.)

H3cde overall effects ~ mostly supported.

Findings: As predicted, regressions findings indicated that IUS, U.S. competence, and U.S. belongingness *positively* predicted cultural fit (this is true for both fit indices), while conversely, IEC, ethnic competence, and ethnic belongingness *negatively* predicted cultural fit (fit-dimensions). However, in contrast to predictions, findings also indicated that competence and belongingness *positively* predicted fit-environments. (See Table 16.)

H3c-interactions: Acculturation, cultural fit, and contextual perceptions ~ partly supported

Hypothesis. In addition to the overall effects noted above, Hypothesis 3c also postulated that links between acculturation and cultural fit would be moderated by youth's perceptions of the prevalence of U.S. and ethnic resources in their everyday contexts.

Plan of analyses. Altogether, there were two dimensions of acculturation (IEC, IUS), two indices of cultural fit (fit-dimensions, fit-environments), and two indices of contextual perceptions (Ethnic and U.S. Context) used in this set of analyses. U.S. Context measured youth's perceptions of the prevalence of U.S. resources and climate in their contexts, while Ethnic Context measured their perceptions of the prevalence of ethnic resources and climate.

Analyses were conducted in a similar pattern as H2abc (i.e., using three blocks of regression). In the first block, cultural fit was regressed on Context, IEC and IUS. In the second block, it was regressed on their two-way interactions (CONTEXT x IEC, CONTEXT x IUS, IEC x IUS), and in the third block, on their three-way interactions (CONTEXT x IEC x IUS). This set of regressions was conducted four times, using different combinations of the cultural fit and contextual-perception variables:
(1) U.S. Context — fit-dimensions, (2) U.S. Context — fit-environments,
(3) Ethnic Context –fit-dimensions, (4)) Ethnic Context — fit-environments.
See Table 17 for a summary of all the interaction findings in Hypotheses H3c,d, and e.

Findings: *acculturation*-cultural fit, contextual perceptions. Findings revealed a significant IUS x U.S. Context interaction for FIT-ENVIRONMENTS [$F(6, 491) = 13.13$, $p < .001$]. Posteriori analyses (equivalent to simple effects) tests indicated that IUS positively predicted fit-environments for both low and high perceptions of U.S. resources (U.S. Context). However, IUS was a STRONGER predictor when perceptions of U.S. resources were low [Beta = .35, $F(1, 254) = 36.05$, $p < .001$] than when they were high [Beta = .28, $F(1, 236) = 19.80$, $p < .01$]

Findings also indicated a significant IEC x Ethnic Context interaction for Fit-dimensions, $F(6, 489) = 23.47$, $p < .01$. Posteriori analyses showed that IEC negatively predicted Fit-dimensions for both low and high perceptions of ethnic resources (Ethnic Context). However, IEC was a WEAKER predictor when perceptions of ethnic resources were low [Beta = -27, $F(1, 221) = 17.89$, $p < .01$] than when they were high [Beta = -.42, $F(1, 267) = 55.23$, $p < .01$].

H3d-interactions: Competence, cultural fit, and contextual perceptions ~ partly supported.

Hypothesis. Similarly, H3d predicted that links between cultural competence and cultural fit will be moderated by youth's perceptions of U.S. resources in their contexts.

Plan of analyses: Hypothesis 3d was analyzed in a similar fashion as those in the previous analyses (e.g., H3c), with the only difference being the substitution of the competence indices (in place of acculturation).

Findings: *competence*-cultural fit, contextual perceptions. Regression analyses yielded a significant Ethnic Competence x U.S. Context interaction for Fit-environments, $F(6,489)=13.50$, $p < .01$]. Posteriori analyses (simple effects tests) indicated that ethnic competence positively predicted fit-environments only when perceptions of U.S. resources (U.S. Context) were high [Beta = .25, $F(1, 234) = 15.74$, $p < .001$].

Regression analyses also yielded a significant U.S. Competence x U.S. Context interaction for Fit-environments, [$F(6, 489) = 13.50$, $p < .01$]. Posteriori analyses indicated that US competence positively predicted fit-environments for both low and high perceptions of U.S. resources (U.S. Context). However, it was a STRONGER predictor when US perceptions were low [Beta =.32, $F(1, 254) = 29.02$, $p < .01$] than when they were high [Beta = .29, $F(1, 236) = 20.72$, $p < .01$]

H3e-interactions: Belongingness, cultural fit, contextual perceptions ~ partly supported

Hypothesis. Finally, Hypothesis 3e postulated that links between cultural belongingness and cultural fit would be moderated by youth's perceptions of ethnic and/or U.S. resources in their contexts.

Plan of analyses: The analyses of H3e were conducted in the same fashion as those described above (e.g., See H3c), with the only difference being the substitution of the belongingness indices (in place of acculturation).

Findings: *belongingness*-cultural fit, contextual perceptions. Regression analyses yielded a significant Ethnic Belongingness x U.S. Context interaction for Fit-dimensions, [$F(6, 489) = 11.52$, $p < .01$]. Posteriori analyses indicated that Ethnic Belongingness negatively predicted Fit-dimensions only when perceptions of U.S. resources (U.S. Context) were high [Beta = -.17, $F(1,234) = 6.96$, $p < .01$].

Regression analyses also yielded a significant U.S. Belongingness x U.S. Context interaction for Fit-dimensions, [$F(6, 489) = 11.52$, $p < .01$]. Posteriori analyses indicated that U.S. belongingness positively predicted fit-dimensions for both low and high perceptions of U.S. resources (U.S. Context). However, it was a WEAKER predictor when perceptions of US resources were low [Beta=.15, $F(1,254)=5.89$, $p < .05$] than when they were high [Beta=.38, $F(1,235)=39.91$, $p < .01$].

Summary of H3cde interactions.

In sum, the interaction findings of H3c, d and e were somewhat mixed. In keeping with predictions, findings indicated that when youth perceived their context to be predominantly "American" (vs. not American), U.S. competence and belongingness were more strongly and positively linked to cultural fit, while ethnic competence was more strongly and negatively linked. These findings suggested that—in contexts that are predominantly American (as perceived by youth), U.S. competencies and belongingness may be more useful in facilitating cultural fit, while ethnic competencies may be less useful (see numbers 1-3 in Table 17).

However, in contrast to predictions, findings also indicated that (1) there was a stronger, more positive link between ethnic competence and cultural fit (fit-environment) when youth perceived their context to be predominantly American rather than low American and (2) that there was a stronger, more positive link between IUS and cultural fit (fit-environments) when youth perceived their environment to be low American (versus high American). In short, these links do not correspond to their context. (See numbers 4-6 in Table 17).

Table 15: H3ab - Acculturation as predictors to competence and belongingness

	Acculturation Subscales as Predictors				
	IEC		IUS		
	Beta	F	Beta	F	R
U.S. Competence	-.13	8.88***	.35	68.89***	.38
U.S. Belongingness	-.12	7.67***	.30	49.28***	.34
Ethnic Competence	.32	54.91***	-.05	1.46	.33
Ethnic Belongingness	.31	52.27***	-.01	.02	.31

Table 16:

H3cde - Acculturation, competence, and belongingness as predictors to cultural fit

	Cultural Fit as Dependent Variables			
	Fit-environments		Fit-dimensions	
Predictors	Beta	F	Beta	F
U.S. components				
IUS (U.S. involvements)	.32	54.46***	.24	32.84***
U.S. competence	.30	50.00***	.26	32.82***
U.S. belongingness	.22	22.86***	.31	48.29***
Ethnic components				
IEC (ethnic involvements)	.05	1.49	-.35	73.93***
Ethnic competence	.10	5.34*	-.19	18.70***
Ethnic belongingness	.13	8.38**	-.16	14.06***

*p < .05, ** p < .01, *** p < .001

Table 17: H3cde interactions with contextual perceptions

The patterns of significant 2-way interactions for Hypotheses H3c, d, and e can be summarized as follows:

1. U.S. competence —cultural fit-environments (+)
   ~ stronger (more +) links when perceptions of U.S. contextual-resources were high
   - low [Beta =.32, F(1,254) = 29.02, p <.001]
   - high [Beta = .29, F(1,236) = 20.72, p .001]
   - diff in Beta: .03

2. U.S. belongingness — cultural fit-dimensions (+)
   ~ stronger (more +) links when perceptions of U.S. contextual-resources were high
   - low [Beta=.15, F(1,254)=5.89, p <.05]
   - high [Beta=.38, F(1,235)=39.91, p <.001]
   - diff in Beta: .23

3. Ethnic belongingness — cultural fit-dimensions (-)
   ~ beta was significant only when perceptions of U.S. contextual-resources were high
   - high [Beta = -.17, F(1,234) = 6.96, p <.01]

4. IUS — cultural fit-environments (+)
   ~ beta was stronger (more +) when perceptions of U.S. contextual-resources were low
   - low [Beta=.35, F(1,254)=36.05, p .001]
   - high [Beta= .28, F(1,236)=19.80, p <.001]
   - difference in Beta: .07

5. IEC — cultural fit-dimensions (-)
   ~ beta was stronger (more -) when perceptions of ethnic contextual-resources were high
   - low [Beta= -27, F(1,221)=17.89, p <.001]
   - high [Beta= -.42, F(1,267)= 55.23, p <.001]
   - diff in Beta: .15

6. ethnic competence — cultural fit-environments (+)
   ~ beta was significant only when perceptions of U.S. contextual-resources were high
   - high [Beta= .25, F(1,234) = 15.74, p <.001]

The first three interactions were in the predicted direction (confirming the ecological theory) while the latter three were in the opposite direction than predicted. The direction of each link is noted in parentheses. (IUS – involvement with U.S. culture, IEC – Involvement with ethnic culture.)

DISCUSSION

Altogether, the discussion is arranged in four different sections—the first section provides an overview of the different findings, demonstrating the compelling support for the ecological model. The following three sections discuss the three sets of hypotheses in greater detail, providing alternative interpretations in addition to the ecological theory. (The first set of hypotheses focuses on ethnic group differences in discrimination, cultural fit and adjustment; the second focuses on acculturation-adjustment links in conjunction with cultural fit, and the third focuses on themes of competence, belongingness and contextual perceptions.) Finally, the last two sections explore the contributions and limitations of the research.

OVERVIEW

Overall, the findings converge in support of the ecological model. To review, the core assertion of the model is that: acculturation is a process that connects the individual with his or her contexts. Its "levels" of involvements are links to one's cultural competence and connection, which, in conjunction with the demands and resources of the contexts—(i.e., together, they form the "cultural fit")—is speculated to be important links to one's overall functioning. Thus, it is not the culture itself but rather, the "fit" between the individual and his/her environment that facilitates or impedes adjustment. More precisely, it is the fit between the individual's cultural competence and connection *and* the demands and opportunities in his immediate environments that facilitate adjustment. Therefore, monocultural individuals living in a daily, bicultural context or in a different monocultural context may have difficulties because of their inability to function or relate to those in their immediate worlds. Conversely, individuals who are more involved in the U.S. culture (for example) may be more competent in their U.S. contexts and more

connected to fellow Americans, and accordingly, more adjusted than those less involved (when living in predominantly U.S. contexts).

Support for the ecological model.

Findings supported the assertions of the ecological model in several converging, if not, related ways (seven altogether): One, the two ethnic groups differed on expected indices. Mexican students reported more cultural fit and less discrimination than Vietnamese peers; additionally, they reported better personal and interpersonal adjustment overall (even when controlling for IUS). These findings correspond with the general assertions of the ecological model as well as the descriptives of the Lansing community (see p. 30). They suggest that individuals who have more ethnic resources and support in their context (as the Mexicans do in Lansing) would have a better sense of fit and a better sense of adjustment than peers who have less contextual/cultural resources (as the Vietnamese do).

Two, the findings that IUS positively predicted U.S. competence and U.S. belongingness and that IEC positively predicted ethnic competence and ethnic belongingness also support the contentions of the ecological model—i.e., that levels of involvements are linked to one's cultural competence and connection. In other words, findings confirmed that individuals who are more involved in the Vietnamese culture (for example) may be more competent in a Vietnamese context and more connected to fellow Vietnamese people. Likewise, those who are more involved in the U.S. culture may be more competent in the American culture and more connected to American peers.

Three, one's U.S. involvements, competence and belongingness predicted a greater sense of cultural fit, while ethnic involvements, competencies and belongingness

predicted less cultural fit. Given that Lansing is a primarily "American" context, it would make sense that those who are more involved, competent or connected to the U.S. culture would feel a greater sense of fit in their environment. Their U.S. skills may be more useful in Lansing, and consequently, more likely to facilitate adjustment. Conversely, those with high ethnic involvements, competencies or connections may experience less cultural fit in Lansing, because it is a context that has little support or utility for such involvements.

Four, cultural fit predicted (positive) adjustment on the majority of indices measured—across personal, interpersonal, and academic domains. Moreover, it mediated numerous links between acculturation and adjustment, primarily between IUS and adjustment. This set of findings is especially compelling in its support for the ecological model because it underscores the importance of cultural fit. It suggests that it is not so much the cultural involvement that is adaptive or maladaptive *per se*, but rather, what the involvements mean in context—i.e., the cultural fit that it leads to—that facilitates or impedes one's functioning.

Also compelling is the fact that cultural fit mediated more IUS-adjustment links than IEC-adjustment links; this finding further confirms the importance of context and cultural fit. Given the press of U.S. influences in Lansing, cultural fit in this context would mean fit in an Anglo-American context. It is this translation or meaning (determined by context) that makes cultural fit more related to IUS and IUS links (than to IEC and IEC links).

Five, students' perceptions of their contexts (i.e., of the cultural influences in their daily environments) moderated links between cultural fit and: U.S. competence, U.S.

belongingness, and ethnic competence. As predicted, those who perceived their environments to be predominantly "American" tended to have stronger (more positive) links between cultural fit and U.S. competence and belongingness and moreover, more negative links between cultural fit and ethnic competence. These findings suggest that U.S. competence and belongingness would be more likely to facilitate cultural fit in contexts that are predominantly American (than not American)—whereas ethnic competence would be less likely to facilitate cultural fit (in predominantly American contexts). In general, these findings support the assertions that congruency between individual and context (whether based on community resources or contextual perceptions) is important in facilitating one's sense of cultural fit. These findings also underscore the importance of examining contextual perceptions or "subjective" realities, in addition to "objective" contexts (student's perceptions and phenomenological experiences vs. descriptives regarding ethnic density, number of ethnic churches, restaurants, newspapers, etc.).

Six, IUS was linked to more positive adjustment overall, while IEC was linked to adjustment in a mixed fashion. This difference in IUS vs. IEC patterns also supports the ecological model. It underscores, again, the importance of context and cultural fit. Given the findings above, it is possible that IUS was linked to more positive adjustment overall because it predicted greater U.S. competencies and belongingness and in turn, greater cultural fit. That is, students who are more involved, competent or connected to the U.S. culture are more likely to feel a sense of fit in their environment. Their U.S. skills and involvements may be more useful in Lansing, and thus, be more likely to facilitate adjustment.

Following the same reasoning, IEC predicted adjustment in a mixed fashion, perhaps because of the lack of ethnic resources in Lansing (which may lead to negative adjustment overall) and because of the existence of some ethnic resources in the family (which may lead to positive adjustment on family relations and academic aspirations). Previous findings indicated that IEC was positively linked to ethnic competence and belongingness but that such components (i.e., ethnic involvements, competence and belongingness) were negatively linked to cultural fit. These findings suggested that youth with high ethnic involvements, competence and belongingness experienced less cultural fit—perhaps because their ethnic skills were rendered useless in the Lasing community. This lack of fit could be why ethnically-involved youth may experience more negative adjustment overall.

Interestingly, the two indices in which IEC predicted more positive functioning (i.e., family relations and academic aspirations) were related primarily to the family context where IEC was perhaps, more useful. Thus, it could be that IEC predicted more positive adjustment in these indices because the sub/contexts in which they (the indices) were associated required more ethnic involvements. This would lead to greater fit in the family context, and consequently, to better adjustment in family relations and academic aspirations.

To summarize, the different patterns—between IUS vs. IEC links and between positive vs. negative IEC links—support the assertions of the ecological model by suggesting the importance of context in studying acculturation-adjustment links. In this set of findings, context can be discerned via its differential impact on IUS and IEC as well as its associations with certain adjustment indices (e.g., family relations). For

example, the fact that IUS was linked to more positive adjustment while IEC was linked to adjustment in a mixed fashion may be a function of what each involvement means or the importance it has in the Lansing context. Moreover, the fact that IEC is linked to positive adjustment on some indices and negative adjustment on others may be a function of the sub-context the indices are associated with and the extent to which IEC is useful in that sub-context (e.g., family relations-family context).

Finally, as predicted, ethnic-group membership (being Vietnamese vs. Mexican) moderated some links between IEC and adjustment. This finding supported the ecological model by underscoring, again, the importance of context and subcontexts. Compared to Mexican peers, Vietnamese youth had stronger and more negative links between IEC and math and reading scores and stronger, more positive links between IEC and family relations. Initially, it was hypothesized that the family context for Vietnamese youth would be more traditionally "ethnic" than it would be for Mexican peers. It is possible then that Vietnamese youth had more positive IEC-family relations links because ethnic involvements were more salient/useful in the family contexts of Vietnamese youth. (See H2-Discussion for a more detailed discussion of IEC's links with math and reading scores).

Findings not consistent with the ecological model.

Although most of the findings demonstrated support for the ecological model, there were a couple of results that failed to support this perspective. For one, ethnic group membership did not moderate IEC-adjustment links as much (or with as many indices) as expected. Initially, it was hypothesized that since the two ethnic groups have different ethnic resources in the Lansing community, it would easier for the Mexicans to

be ethnically-involved and for this involvement to be more strongly linked to (positive) adjustment. Findings however, demonstrated support for this only with regard to IEC's link with math and reading scores. Ethnic group membership did not moderate IEC's link with any of the other adjustment indices (e.g., depression, self-esteem, symptomatology, life-satisfaction, disposition to delinquency, etc.). See section H3-Discussion for further discussion of these findings.

Furthermore, the finding regarding cultural competence and belongingness were somewhat mixed. Ethnic competence and belongingness positively predicted one cultural fit index (as predicted) but negatively predicted the other cultural fit index (not predicted). The majority of links examined occurred in the predicted direction (e.g., IUS, U.S. competence and belongingness were linked to both fit indices; IEC, ethnic competence and belongingness were linked to fit-dimensions). The only correlations that went against predictions were ethnic competence and belongingness' negative links with fit-environments. These correlations, however, were small —accounting for less than 2% of the total variance. It is unclear as to why there were mixed findings; see section H3 for further discussion of these findings.

Conclusion.

In sum, the majority of findings demonstrated convergent and compelling support for the ecological model. This section was intended to provide a broad overview of the findings and to highlight the most important themes. The next sections will discuss the three sets of hypotheses in greater detail—incorporating other possible interpretations in addition to the ecological theory.

DISCUSSION of H1 ~ ETHNIC GROUP DIFFERENCES

In general, findings supported the hypotheses in H1—that is, Mexican adolescents did better psychosocially, while Vietnamese adolescents did better academically. More specifically, Mexican youth reported/experienced a greater sense of cultural fit and less discrimination than Vietnamese peers. Additionally, they reported doing better in several personal (i.e., depression, symptomatology, self-esteem, and life-satisfaction) and interpersonal indices of adjustment (i.e., family and peer relationships), though differences in depression were marginally significant. However, Mexicans also reported more difficulties in their relations with teachers, in their disposition to delinquency, and in several indices of academic functioning (i.e., school GPA, math scores, academic aspirations, and time spent on homework).

Interpretations: Cultural fit, Discrimination and Personal/Interpersonal Adjustment

Mexican students may have done better psychosocially, in part, because of the difference in structural consonance in their various contexts—i.e., in Lansing, family and peer contexts. In brief, the Mexicans have more of an ethnic community in Lansing than do their Vietnamese peers. It is this sense of community (ethnic resources and support), coupled with their English proficiencies that may facilitate a greater sense of fit and better psychosocial adjustment overall.

Lansing context. Take the Lansing context, for example. The Mexicans are much more established in Lansing than their Vietnamese neighbors. Not only do they have a wider array of ethnic resources and enclaves, but they also have a deeper sense of history. The Mexican population (8,000+) in Lansing is 11 times the size of the Vietnamese population (N = 703), and in contrast to the 1 or 2 Vietnamese restaurants here, there are

many more resources for the Mexican person, including 1+ newsletter, 4+ churches, 6+ restaurants, 7+ businesses, and 16+ agencies and organizations (U.S. Census Bureau, 1990; Michigan Commission on Spanish Speaking Affairs, 1995) as well as several Spanish TV and radio shows and a Mexican festival every summer.

Historically, the Mexicans are also more rooted in Lansing; they migrated to Lansing over 40 years ago. Most Mexican families here are 2nd or 3rd generation Americans, if not 2nd or 3rd generation residents of Lansing. The majority of them have parents and grandparents born in the States. Hence, in contrast to Vietnamese adolescents, the majority of Mexican youth in our sample were born and raised in Lansing. They are more proficient in English, more involved and competent in the U.S. culture, and display greater knowledge of U.S. norms and expectations (as confirmed by supplemental analyses).

Thus, for all these reasons at this time, Mexican youth may be more likely to feel a sense of cultural fit in Lansing than would Vietnamese peers—whose families are relatively new immigrants and whose ethnic density and community resources are miniscule in comparison. In other words, because of their contextual (e.g., ethnic density, community resources), and demographic "advantages" (years of U.S. residence, IUS, English proficiency, U.S. competencies), Mexicans have greater consonance in the Lansing context. It may be this consonance that leads to a better sense of fit (i.e., greater cultural fit and less discrimination) and in turn, to better personal and interpersonal adjustment (i.e., depression, symptomatology, self-esteem, life-satisfaction, and family and peer relations).

Furthermore, it may be worthwhile to note that both demographic and supplemental analyses support this interpretation. Post-hoc analyses indicated that (1) the Mexicans were significantly more versed in the U.S. culture than Vietnamese peers (i.e., they had greater IUS, English proficiency, U.S competencies, and years of U.S. residence); (2) that being versed in the U.S. culture was positively related to cultural fit and negatively related to discrimination, and (3) that discrimination negatively predicted and cultural fit positively predicted adjustment—on most of the adjustment indices measured.

Family context: Following the same reasoning, Mexican youth may experience better family relations because they have better fit or consonance in the family context (more congruence in values and behaviors, less role reversals, etc.). This assertion is based on the reasoning that Mexican *parents* may be more Americanized than the Vietnamese *parents* (and that both Mexican and Vietnamese youth are somewhat Americanized). Given their demographic differences in birthplace (76% of Mexican parents were born in the U.S. vs. 98% of Vietnamese parents were born in Vietnam) and U.S. residencies (36+ years for the Mexican parents vs. 7 years for the Vietnamese parents), it is likely that Mexican parents are more assimilated to the U.S. culture, more proficient in English, more aware of U.S. norms and customs, and hence, more Americanized than Vietnamese parents.

This difference in Americanization is important because it may affect the degree of consonance and role reversals impacting the quality of family relations. Given the parents Americanization (e.g., greater fluency and mastery of American ways), Mexican students may experience less "role reversals" than Vietnamese peers. Role reversals

happen when parents are less fluent in the U.S. skills and rely on their children's abilities (e.g., English proficiencies) to manage adult-like activities that they would normally handle (e.g., talking with doctors, handling complex paper-work, etc.). Such reversals could undermine parent's authority, and in set the stage for intergenerational conflict (e.g., Gold, 1992). Since the Mexican parents in this study were more versed in American ways, role reversals may be less likely to occur within the Mexican family. Their parents' Americanization and their relative lack of role-reversal may be, in turn, why Mexican students experience better family relations than Vietnamese peers.

Similarly, Mexican youth may also experience better family relations because there is a greater sense of congruency between the Americanized values they may be internalizing and the values that their (more Americanized) parents have adopted. In contrast, Vietnamese youth may experience more dissonance and role reversals within their family context—i.e., between their parents' traditional values and skills and the Americanized ones that they may be internalizing from school, peers, etc. Such dissonance may lead to more cultural conflicts and thus, to more difficulty in family relations for Vietnamese youth (c.f., Portes & Rumbaut, 1996).

Post-hoc analyses, in fact, supported this reasoning. Findings indicated that: Vietnamese students reported less fit within their family context and more cultural conflict with their parents than did Mexican peers. Furthermore, fit within the family context predicted stronger family relations, while cultural conflicts with parents predicted more negative family relations.

Peer context: The same line of reasoning could also hold for peer relations. That is, Mexican youth may experience better peer relations than Vietnamese students because they have better fit in their peer contexts. Supplemental analyses confirm that Mexican students reported better fit in their peer context than did Vietnamese youth and furthermore, that fit in the peer context predicted better peer relations.

It is likely that the Mexicans experienced better fit and better relations with their peers for two reasons. One, they may be more similar to U.S. peers. As mentioned earlier, Mexican youth are more involved and competent in the U.S. culture, more linguistically assimilated, and perhaps more familiar with U.S. norms than Vietnamese youth. Such differences may facilitate better fit in the peer context and better peer relations overall for the Mexicans. In addition to having more similarities with U.S. peers, Mexican students may also have more opportunities to develop friendships with co-ethnic peers (reason 2). Since there is a greater Mexican population in Lansing, these students may have more opportunities to befriend peers who are ethnically similar to them and thus, may feel more satisfied with the quality and choices available for peer relations.

In comparison, Vietnamese students may be less likely to connect with fellow U.S. peers (since they are less Americanized) and furthermore, more likely to have conflict with fellow co-ethnics (since there is a greater contrast between U.S. vs. foreign-born Vietnamese students). In contrast to the 98% to 2% ratio of U.S. to foreign-born Mexicans, 20% of Vietnamese students were U.S.-born, while 80% were foreign-born (i.e., in Vietnam). This difference in birthplace/nativity ratio (U.S. born vs. foreign-born) could minimize the quality of peer relations, particularly in and between Vietnamese

students. That is, recent Vietnamese immigrants may have difficulties befriending not only U.S. peers but also fellow, U.S.-born peers. Some foreign-born students may feel distanced, discriminated, and looked down upon by their U.S.-born counterparts, perhaps because they were "too Vietnamese" or "too different" or perhaps because it was difficult to communicate in Vietnamese with co-ethnic peers (as suggested in personal interviews with Vietnamese students, May 1998). Similarly, U.S. born-Vietnamese students may be less likely to befriend foreign-born peers because they were somehow ashamed, embarrassed, or just unfamiliar with the traditional ways of their foreign-born counterparts.

In sum, Vietnamese students may experience more difficulties in peer relations because (1) they are less similar to U.S. peers; (2) they have less fit in the peer context; (3) they have less opportunities to interact with fellow co-ethnics; and (4) they feel discriminated by some of their co-ethnic peers (U.S. born vs. foreign-born students).

Interpretations: Academic Functioning.

In contrast to findings above, Vietnamese students reported doing better in their relations with teachers, in their disposition to delinquency, and in several indices of academic functioning (i.e., school GPA, math scores, academic aspirations, and time spent on homework). These findings could be due to several reasons, including: differences in cultural emphases, in adversarial identity, and in Americanization.

Cultural differences in Academic Emphasis. One interpretation may be because the Vietnamese culture is traditionally, more academically-oriented than the Mexican culture. As a whole, Vietnamese people tend to extol the virtues of hard work, personal efficacy, and love of learning, (important to academic achievement) and to devalue the

act of seeking fun and excitement, (which can detract from such achievements). As Caplan et al. (1992) explain, there is a strong emphasis on education in the Vietnamese tradition. It is often viewed as a key to social acceptance and economic success, and it is further reinforced by strong parental commitment and by structures within the family. Vietnamese parents, for example, model the same sense of drive and achievement by working hard in their jobs. They also assume responsibility for practical considerations (e.g., chores) to facilitate their children's studies. And they set goals for the evening's activities—such that homework dominates household activities and that older children teach younger siblings. In these ways, the Vietnamese family helps their children to feel at home in school and thus, helps them to perform well there. For all these reasons, Vietnamese students may be more likely to perform academically and to cultivate better relations with their teachers than Mexican peers. These cultural values may socialize Vietnamese students to be less disposed to delinquent attitudes as well.

Differences in Adversarial Identity. A second interpretation for the academic differences may be due to the formation of an "adversarial identity," seen in some Mexican youth. An adversarial identity is an identity formed in reaction to the mainstream culture (e.g., Ogbu, 1992, 1995; Portes & Rumbaut, 1996). In this case, it could be that to be Mexican is to be "non-white." Since academic achievement is associated with "acting white," Mexican youth striving to maintain their ethnic identity, may be in fact, striving to *not* learn.

Past research, for example, indicated this adversarial identity to be true for some Chicano groups in California. As Portes and Rumbaut (1996) explain,

> Chicanos were mostly U.S. born second and third generation students whose primary loyalty was to their in-group, seen as locked in conflict with white society. Chicanos referred derisively to successful Mexican students as "schoolboys" and "schoolgirls" or as "wannabes." According to Matute-Bianchi, "to be a Chicano meant in practice to hang out by the science wing...*not* eating lunch in the quad where all the "gringos" and schoolboys hang out ...cutting classes by faking a call slip so you can be with your friends at the 7-11.... sitting in the back of classes and not participating...not carrying your books to class...*not* taking the difficult class...doing the minimum to get by." (p. 246).

Portes and Rumbaut (1996) also suggest that, "the socialization process that takes place in this setting encourages newcomers to shift loyalties toward the common adversarial stance of their native-born peers. To strive for academic achievement is to 'act white,' leading directly to the forced-choice dilemma exemplified by Mexican students in California schools. The end result of this process is summarized by anthropologists Marcelo Suarez-Orozco as 'learning not to learn' (Portes & Rumbaut, 1996, p. 249)."

Hence, in contrast to Vietnamese youth where education is a strong part of the cultural identity, it could be that "non-education" may be a strong part of the Mexican identity. This cultural difference in adversarial identity may be why the Mexican youth in this study do worse academically than their Vietnamese peers.[2]

Footnote 2: As a caveat, however, later (H2) findings do not support the contention that IEC impedes academic functioning for the Mexicans in this sample. In fact, the reverse was found—i.e., the Mexican students who were more involved in their ethnic culture reported higher academic aspirations. Furthermore, their ethnic involvements were not negatively related to any of the academic indices or significantly related to any other index of academic functioning—aside from their aspirations (see Table 11). Hence, these supplemental findings suggest that among the three interpretations, the interpretation of an adversarial identity may be less applicable for our sample.

Differences in Americanization (U.S. residence). A third reason why Vietnamese students performed better academically may be because of their relative lack of "Americanization" (i.e., years in the U.S.), compared to Mexican peers. In his work with children of immigrants, Rumbaut (1994) noted that school GPA tends to decrease over time and with years in the U.S.. (This finding corresponds to other research as well—e.g., Caplan et al., 1991; Gibson, 1989; Olsen, 1988; Rumbaut, 1990, 1995; Rumbaut & Ima, 1988; Suarez-Orozco, 1989; Sung, 1987, as cited in Rumbaut, 1994). Such indices may be indicative of the formation of an adversarial identity (as described above), or it may be indicative of a move away from one's ethnic culture and toward the American culture (e.g., a sense of Americanization). Those who are more Americanized (i.e., born in the U.S., have more years of U.S. residence) may pull away from their cultural values and thus, place less emphasis on academic achievement than more traditionally-ethnic peers. They may also assimilate some of the more "negative" aspects of the American culture (e.g., gangs, delinquency, etc.), which in turn, can impede academic functioning. Thus, it could be that Mexican youth scored lower academically because they were more Americanized in certain ways—i.e., they were born in the U.S. and have lived longer in the U.S.—and that such Americanization may limit their academic functioning.

Post-hoc analyses, in fact, confirmed these group differences in birth place and U.S. residence and furthermore, confirmed that such indices (i.e., birth place, U.S. residence) negatively predicted academic functioning.[3,4 (next page)]

As a whole, Vietnamese students may have performed better academically because: (1) the Vietnamese culture places a greater emphasis on academics; (2) because they were less likely to form an adversarial identity; and (3) because they were less

Americanized than Mexican peers in certain ways (i.e., they have less years of U.S. residence and most were born outside of the U.S.).

Additionally, it may be worth noting that SES did not account for the group differences in academic adjustment. Although higher SES generally translates to better academic functioning, this does not appear to be the case in our study—since the Vietnamese sample did better academically even though they had lower SES (as measured by parents' income and by whether they rent vs. owned their homes).

Footnote 3: As a caveat, however, it may be worthwhile to note that the Mexicans have greater U.S. involvements (IUS) than Vietnamese peers and that such involvements were also associated with *better* academic functioning (see H2 findings) This tidbit seems to contradict the reasoning above—i.e., that Americanization (U.S. residence, being born in the U.S.) was associated with more negative academic functioning and that the Mexicans fared worse academically because they have lived longer in the U.S.. However, it could be that IUS and U.S. residence are not one and the same. Although both terms reflect a sense of Americanization (and are positively related to each other), they could portray different aspects of the U.S. culture. IUS, essentially reflects involvements only in neutral or positive aspects of the culture (e.g., food, language),[4] whereas length of U.S. residence may entail more "comprehensive coverage," incorporating both positive *and* negative aspects of the culture. (See Footnote 4.) It is possible for IUS to positively predict and U.S. residence to negatively predict academic functioning—because such predictions vary depending on which aspects (or segments of assimilation) the terms are reflecting. In other words, the predictions may have differed because the aspects (or segments of assimilation) they reflected, differed.

Footnote 4: Like many scales, our operationalization of acculturation (i.e., IUS, IEC) involves explicit questions that focus on neutral to positive aspects of the culture (e.g., food, music, language). While this is a common format for most acculturation scales, the concern is that it may not cover other important or more negative aspects of cultural involvement. Szalay, Canino and Vilov (1993), for example, measured acculturation using an unstructured, open-ended format. In so doing, they found that acculturation took on two alternative processes: a successful process and a delayed, pathogenic process. Furthermore, they found that the pathogenic process was linked to drug use. Hence, one difference in our findings (where IUS was related to positive adjustment, Nguyen et al., 1999) and theirs (where a pathogenic process was linked to drug use) may be a function of the nature (positive vs. negative) and structure (direct vs. open-ended) of acculturation items. Consequently, as with all studies, it is important to remember that the nature and format of the scale may impact findings. While there are advantages and disadvantages to different approaches, it may be helpful to use multi-sources and methods in measuring acculturation whenever possible.

Summary and Integration of H1 findings

To summarize H1 findings overall, Mexicans did better in terms of cultural fit, discrimination and psychosocial adjustment, while the Vietnamese did better in terms of academic functioning.

It is compelling to note that this pattern of findings was consistent in other studies as well. Rumbaut (1994), for example, found virtually, identical patterns in his analyses of Mexican and Vietnamese children in San Diego. More specifically, he found that Mexican youth did better psychosocially—in terms of self-esteem, depression, parent-child conflicts, and experiences of discrimination, while Vietnamese youth did better academically—in terms of school gpa, math scores, reading scores, educational aspirations, and time spent on homework. Moreover, he found that this pattern persisted across time (e.g., three years later).

Furthermore, it might be interesting to note that the differences in contextual resources and consonance vs. dissonance between our two samples (Mexican vs. Vietnamese) were also true for his two samples. That is, the Mexican youth in his sample also experienced more consonance in San Diego than did their Vietnamese peers. As Rumbaut explained (personal communications, November 1999; also see Rumbaut, 1994), "the two groups are polar opposite types of migrants—labor migrants vs. political refugees—experiencing distinct contexts of departures and reception in the U.S.. San Diego is located on the Mexican border (and was once even a part of Mexico), and Mexican migration to California is a virtually continuous pattern that goes back to the last century. Hence, Mexicans (especially those who legally can) can cross the border and be back "home" in a relatively short bus ride, whereas the Vietnamese until recently were

exiles who had burned their bridges behind with no likely possibility of return. With regard to ethnic density and context of reception, there are far more Hispanics (Mexican-origin overwhelmingly) in San Diego than Vietnamese and consequently, a more established community for the Mexicans. To illustrate, San Diego is a Spanish-named city in a Spanish-named state with lots of Spanish TV and radio stations, etc.. In contrast, Vietnamese is a strange tonal language (and even alphabet) and culture by comparison; there was virtually no pre-existing Vietnamese co-ethnic community in San Diego waiting to receive the refugees when they began arriving in 1975 and after. So in all those social, cultural and historical senses, the level of contextual dissonance is greater for the Vietnamese (mostly quoted, some paraphrasing and reorganization added)."

Taken together, these findings are compelling because they demonstrate consistent patterns across time and contexts. Be it in San Diego or Lansing, it could be that variations in levels of consonance (vs. dissonance) can impact one's adjustment.

As a whole, findings supported all the hypotheses in H1—except for one, regarding discrimination. Initially, it was hypothesized that the Mexicans would experience greater discrimination because the stereotypes for Mexican groups tend to be more negative than stereotypes for their "model minority" peers. However, since these speculations were not supported, it could be that: such stereotypes were not widely held among people in Lansing, or that such stereotypes were held but that they do not necessarily lead to discrimination. Furthermore, it could also be that the Mexican group experienced less discrimination because they are viewed as more threatening or dangerous than their Vietnamese peers—who may be viewed as more meek and thus, more easy to pick on (personal communications, Steve Gold, January 2000). Finally, it

could be that cultural support for the Mexicans (in Lansing) may minimize or insulate the Mexicans from potential experiences of discrimination.

H1: CONCLUSIONS

In conclusion, the main purpose of this section was to examine differences between Vietnamese and Mexican groups in order to test assumptions of the ecological model. While it is beyond the scope of this dissertation, however, it may be interesting for future research to explore how each group does in comparison to standard means and clinical cut-offs. How are students doing in general (rather than just compared to each other)? What are the unique processes affecting the development of each group? Wolf (1997), for example, found that despite their academic success, some Filipino college students at UC-Davis were struggling psychosocially—experiencing great despair and depression and seriously considering or attempting suicide in part, because of the cultural presses in their families. Given the findings in this study, are Vietnamese youth experiencing similar kinds of concerns (as described by Wolf)? How are they doing psychosocially?

Moreover, how are Mexican youth doing academically? How do the findings here corroborate with information from the schools? Administrators in the Lansing Schools, for example estimate that two-thirds of their Hispanic student-population (who are overwhelmingly Mexican—80-90%) are academically at-risk—as defined by: failing two or more classes, having lower than average test scores, having high absence or attendance problems, and having low family income overall (personal communications with Luis Briones, counselor; Ronald Lott, assistant principal; and Reneiro Araoz, principal at Eastern High School in Lansing, MI, November 1999). While this estimation

may be somewhat high, there are real concerns about the academic functioning of Hispanic youth in Lansing—as evidenced by new pilot programs targeting at-risk Hispanic youth (e.g., Hispanic Initiative Program) and by recent debates about developing charter schools for these youth (personal communications with Luis Briones, November 1999). Thus, it would be helpful for future research to explore the academic functioning of Mexican youth in more depth, in and of itself.

While these issues may be important to explore further, they are beyond of the scope of this study. The inclusion of the two groups was not to examine cross-cultural differences *per se*, rather it was to examine how such differences may impact the structure and mechanisms of the ecological model. To that end, findings in H1 help to substantiate some assumptions of the model—namely that those (Mexican) who have greater contextual resources may be more likely to experience a (subjective) sense of cultural fit and better psychosocial adjustment overall. In essence, contextual influences (e.g., contextual resources, discrimination experiences) and cultural fit—be it in Lansing, family, or peers contexts—may play an important role in one's functioning and as we shall see in the next section, in acculturation-adjustment links.

DISCUSSION of H2 ~ Acculturation, Adjustment and Cultural fit

Acculturation and adjustment.

H2a: IUS and adjustment.

Findings indicated that there were significant acculturation-adjustment links for both ethnic groups (combined). As expected, adolescents who were more involved in the U.S. culture (IUS) were more adjusted overall—across personal (i.e., self-esteem, life-satisfaction, and disposition to delinquency), interpersonal (i.e., family, peer, and teacher relations), and academic domains of adjustment (i.e., school GPA, reading scores, and academic aspirations).

One interpretation of these findings is that IUS leads to better outcomes; it is possible that in the predominantly "American" contexts of Lansing, U.S. involvements (IUS) would provide youth with the skills necessary to function successfully in their daily activities. This, in turn, could facilitate adjustment. A second possibility is that better adjustment leads to greater U.S. involvements; perhaps those who are healthier are more likely to explore other worlds and thus, more likely to get involved in cultures outside their own. Hence, the higher the adjustment, the higher the U.S. involvement.

In contrast to some other findings, however, results of this study do not suggest that "increases in acculturation [high IUS]...alienate the individuals from their ethnic group...[and] facilitate internalization of damaging behaviors and beliefs that may result in self-deprecation, ethnic-, and self-hatred, and a weakened ego-structure" (Burnham, Hough, Karno, Escobar & Telles, 1987; Pumariega, 1986; Rogler, Cortes & Malgady, 1991). The discrepancies in findings may be due to differences in the contexts in which these studies were conducted. In the predominantly "American" context of Lansing, for

example, U.S. skills or involvements may be imperative to function adaptively. However, in other contexts—where there is a substantial population of ethnic minorities (e.g., in a "large Southern city with a large Hispanic population," Burham et al., 1987), U.S. involvements may not be as essential. Furthermore, in diverse contexts as these, there may be a wider array of "urban" influences to which the adolescents are exposed —e.g., a greater number of negative elements (gangs, drugs, delinquency, etc.) associated with U.S. involvements. These associations, in turn, could account for the negative outcomes found in previous studies (e.g., Szalay, Canino & Vilov, 1993). In addition to contextual differences, variations in the ethnic groups studied and the types of adjustment indices used may also help to explain the discrepant findings.

H2b: IEC and adjustment.

In contrast to IUS findings above, IEC was linked to more mixed functioning. Compared to those who were less involved, adolescents who were more involved in the ethnic culture (IEC) fared better in terms of family relationships and academic aspirations but worse, in terms of depression, symptomatology, and math and reading scores (i.e., higher levels of depression and symptomatology and lower math and reading scores). Overall, however, IEC was linked to more negative adjustment than positive adjustment.

IEC and negative adjustment: One possibility for these more negative findings is that IEC leads to distress and depression. Perhaps it is difficult to be ethnic in the primarily "American" contexts of Lansing, and thus, more distressing for those interested in maintaining their ethnic roots. Conversely, it could also be that distress and depression lead to greater involvements in the ethnic culture. That is, distressed adolescents may be

more likely to cling to the traditional values, customs, and behaviors in which they feel most familiar and secure.

Furthermore, it is possible that IEC predicted lower scores in math and reading because ethnically-involved youth may lack the U.S. skills important to their performance on these tests. Their lack of English proficiency, for example, may impede their learning and test-taking abilities in American classrooms. This, in turn, could lower their scores in math and reading. Post-hoc analyses supported this reasoning, for the most part—as IEC negatively predicted English proficiency ($r = -.19$, $p < .01$) and English proficiency positively predicted reading scores ($r = .31$, $p < .01$). Ethnically-involved youth tended to have less English proficiency, while those with higher English proficiency tended to have higher reading scores. Of course, these interpretations are not mutually exclusive, and both/all explanations may have some degree of validity.

IEC and positive adjustment. The fact that IEC positively predicted family relations and academic aspirations could be due to several reasons. One is that youth who are ethnically-involved may be more similar to their parents (with regard to cultural behaviors, values and academic-orientations). These similarities would facilitate better fit in the family context, which in turn, would strengthen family relations and heighten academic aspirations (via socialization of ethnic/family values). Post-hoc analyses supported this interpretation, as IEC was positively related to student's sense of fit in the family context; as fit in the family context was positively related to the quality of family relations; and as the quality of family relations was positively related to academic aspirations.

Another reason for the positive findings could be that family relations lead to ethnic-involvements. Since the family is often the primary place where culture is transmitted and sustained (e.g., Wolfe, 1997; Gil &Vega, 1996; Caplan et al., 1992), those with strong family relations may be more likely to be ethnically-involved. In other words, strong family relations could foster involvements in the ethnic culture. As Gil and Vega (1996) maintain, "Families are often the only resource available to sustain a sense of...cultural continuity for immigrating children (p. 437)." Caplan and his colleagues (1992), further explain that:

> Knowledge of one's culture does not occur in a vacuum; it is transmitted through the family. Children often acquire a sense of their heritage as a result of deliberate and concentrated parental effort in the context of family life. This inculcation of values from one generation to another is a universal feature of the conservation of culture...the family is the central institution in these traditions, within which and through which achievement and knowledge are accomplished. (p. 96)

In contrast to numerous research suggesting the adaptiveness of biculturality (e.g., Berry, Kim, Minde & Mok, 1987; Lang, Nunoz, Bernadal & Sorenson, 1982; Portes & Rumbaut, 1990; Rumbaut, 1991; Szapocznik & Kurtines, 1980; Wong-Rieger & Quintana, 1987), this study did not support such an interpretation (for most of the indices examined). This lack of support for the adaptiveness of biculturality was due mainly to IEC's associations with negative adjustment; IUS, as the other component of biculturality, was related in the predicted positive direction. In previous research, biculturalism was speculated to be adaptive because it enables individuals to function in different cultural contexts (e.g., Szapocznik & Kurtines, 1980). However, the major assumption is that individuals are, in fact, living in multicultural contexts and that these contexts are pervasive influences in their functioning. For our sample, biculturalism was linked to

positive outcomes primarily in the family context (in terms of family relations and academic aspirations but not in terms of depression, distress, self-esteem, etc.).

It is possible that IEC was linked to more negative adjustment overall because the "Vietnamese/Mexican-family contexts" were not as pervasive influences as the predominantly "American" one in Lansing. Although the adolescents' families may be somewhat "ethnic" (as suggested by the positive and robust associations between IEC and family relationships and by adolescents' descriptions of the language they speak at home, etc.), it may also be somewhat "Americanized"—especially with regard to the Mexican families who have resided in the U.S. for generations. Hence, IEC's relationship with negative adjustment could be due to the fact that the family context (where more ethnic involvements occur) is not a helpful buffer to adjustment because it is not very important or salient to adolescents at this stage in their development, when peers and school may take precedence. It could also be that ethnically-involved youth have difficulty functioning in a larger context which has little need or support for such involvements.

Acculturation and adjustment links overall.

The acculturation-adjustment patterns, however, are consistent with previous studies/findings in Lansing (i.e., Nguyen et al., 1999, Juang, 1997). In Juang's (1997) study of Asian-American college students, for example, she also found that IUS was positively linked to personal adjustment (i.e., depression and self-esteem), while IEC was negatively linked. Moreover, in our previous work with Vietnamese youth (conducted in the same school system, three years prior to this study—Nguyen et al., 1999), we also found that IUS was linked to more positive adjustment overall—i.e., in terms of distress,

depression, self-esteem, family relations, and school GPA—and that IEC was linked to adjustment in a mixed fashion—i.e., better family relations but also more distress. It is also interesting to note that findings were completely replicated when comparing results of the Vietnamese sample in this study with that in the previous work. Not only were the cultural involvements linked with adjustment in the same patterns, but they also demonstrated the same magnitude of associations and the same significant interactions.

It is possible that findings in this study were similar to the findings/studies in Lansing but different from those mentioned above—because of variations (similarities vs. differences) in the contexts in which they were conducted. Taken together, the different findings suggest that contextual factors play a pivotal role in understanding acculturation-adjustment links. As Birman, Trickett and Vinokurov (*under review*, p. 2) maintained, "there is no 'best' acculturative style independent of context."

H2c: Ethnic-group differences in IEC-adjustment links

With regard to group differences, findings indicated that: (1) Vietnamese youth had stronger acculturation-adjustment links than did their Mexican peers and (2) that with the exception of IEC's link with math and reading scores, acculturation was linked to more positive adjustment overall (for the Vietnamese group). More precisely, the links between: IEC and math scores(-), IEC and reading scores(-), IEC and family relations(+), IUS and depression(-), IUS and self-esteem(+), and IUS and family relations(+) were consistently stronger for the Vietnamese (i.e., the VN Betas were of a greater magnitude, indicating more positive adjustment overall). The direction of each association is noted in parentheses.

Overall results were mixed with regard to initial expectations. Initially, it was predicted that IEC would be linked to more positive adjustment for Mexican youth. Since the Mexican group have more ethnic resources in the Lansing context, it seemed that (1) it would be easier for them to be ethnically-involved and (2) that such involvements would be more useful and rewarding in Lansing and thus, more likely to facilitate positive adjustment. Using the same reasoning, it seemed that Vietnamese students would have more difficulty being involved in their ethnic culture and that IEC would be related to more negative adjustment for them—except with regard to family relations (where IEC was expected to be more positively linked).

Findings seemed to confirm this general reasoning—as IEC was linked to more negative math and reading scores and more positive family relations for the Vietnamese group. However, it may also be important to note that there were no group differences in IEC's link with other adjustment indices (e.g., depression, self-esteem, life-satisfaction, disposition to delinquency, peer and teacher relations, etc.).

IEC—math and reading scores

The fact that IEC negatively predicted math and reading scores for the Vietnamese group (and only this group), supports initial contentions. It could be that Vietnamese youth have more difficulty being ethnically-involved and that it is this difficulty that impedes their learning and results in lower math and reading scores.

However, these findings could also be due to differences in English proficiency (since IEC links occurred only with math and reading scores and not with other indices). That is, IEC could be a proxy to English proficiency, and it is this lack of proficiency that hinders their performance in math and reading. Hence, IEC negatively predicted math

and readings scores only for the Vietnamese group, perhaps because they were less proficient in English than were Mexican youth. Further analyses support this possibility as: (1) the Vietnamese group reported significantly less English proficiency than the Mexicans; (2) as IEC was inversely related to English proficiency (and more strongly so for the Vietnamese group) and (3) as English proficiency was positively related to math and reading scores.

Yet, it is also interesting to note that IEC negatively predicted math and reading scores even when controlling for English proficiency. This last result suggests that it may be more than English proficiency that accounts for IEC's link with math and reading. Taken together, these findings suggest that both interpretations (difficulty vs. proficiency contentions) may have some degree of validity.

IEC-family relations.

As predicted, Vietnamese youth had stronger, more positive links between IEC and family relations. Following the initial line of reasoning, Vietnamese families were presumed to be more "ethnic" than Mexican families (who as demographics suggest, tend to be somewhat Americanized). Hence, it could be that Vietnamese youth had more positive links between IEC and family relations because their family context was more "ethnic." IEC, therefore, would be more salient in these contexts and more likely to strengthen family relations.

Additional Interpretations:

In sum, findings were mixed with regard to group differences in IEC-adjustment links. Ethnic group membership moderated links between IEC and family relations and math and reading scores (as predicted); it did not, however, moderate IEC's links with other adjustment indices (e.g., distress, depression, self-esteem, life-satisfaction, etc.) as expected.

It is unclear as to why IEC's links with other adjustment indices did not differ between groups. However, some possibilities for these latter findings (the lack of relationships) could be that—while contextual/cultural resources differed between the two groups, such differences: (1) may not affect IEC-adjustment links at all or (2) they may not be pronounced enough to affect IEC-adjustment links. To test the feasibility of this interpretation, future research should study acculturation-adjustment links with ethnic groups in vastly, contrasting communities and locations (with different prevalence of ethnic resources, ethnic densities, etc.).

H2d and H2e: Cultural fit, acculturation and adjustment.

Results indicated that cultural fit predicted (positive) adjustment on the majority of indices measured—across personal, interpersonal, and academic domains. Moreover, it mediated numerous links between acculturation and adjustment. When taken together, these findings suggest that cultural fit is an important concept in understanding adjustment and in studying acculturation-adjustment links. It is not so much the cultural involvement (e.g., IEC, IUS) that is functional or dysfunctional *per se,* but rather what it means in context (e.g., the extent to which it leads to cultural fit) that facilitates or impedes adjustment.

These findings are particularly compelling since cultural fit predicted adjustment on the majority of indices measured (i.e., symptomatology, depression, self-esteem, life-satisfaction, math scores, academic aspirations, and family, peer, and teacher relations). Such findings could suggest that cultural fit leads to adjustment—i.e., the more adolescents fit into their contexts, the better adjusted they are personally, interpersonally, and scholastically. However, they could also suggest that adjustment leads to cultural fit—that is, youth who are more adjusted are more likely to fit into their cultural contexts.

Either way, the findings seem to correspond nicely to those in previous research (Rosenberg, Berry, Bankston & Zhou, Gil & Vega, Rumbaut, Murphy, Ward et al., Birman et al., Szapocznik & Kurtines). Murphy (1965) for example, implied the importance of ethnic density and cultural fit in facilitating adjustment. In his review, he found that immigrants who resided in areas where there was a substantial immigrant population had better mental health (as measured by clinical disorders and hospitalization rates) than those who were scattered "in penny numbers" throughout their communities.

Moreover, Mishra et al. (1996), studied three tribes in South India and found that the most nomadic tribe (i.e., the hunters/gatherers) exhibited the most acculturative stress and physical and psychological symptoms than more agrarian tribes. Mishra et al., attributed these findings to the fact that the nomads had the greatest "eco-cultural dissonance" between their lifestyle and the lifestyle advanced by acculturative pressures taking place in their world. In essence, the assumption was that the greater the dissonance the greater the difficulties; the better the cultural fit, the better the adjustment.

The same patterns of findings were also demonstrated in Gil and Vega's (1996) study of Cuban and Nicaraguan families in Miami. Gil and Vega found that the

Nicaraguans experienced more cultural stress (i.e., more experiences of discrimination and greater language and acculturation conflicts) than did their Cuban peers. They attributed their findings to the different conditions in the groups' contexts, explaining that the Cubans fared better because they had more established enclaves and resources than Nicaraguans peers—who, in contrast, encountered greater barriers in their resettlement to Miami (i.e., more exploitation by Mexican police, more restrictions in obtaining job permits and legal residence, etc.). Again, the implication was the better the community resources the better the cultural fit; the better the cultural fit, the better the adjustment.

Szapocznik and Kurtines (1980) drew similar conclusions in their study of Cuban families. More specifically, they studied Cuban mothers and their adolescent sons in Miami and discovered that acculturation was linked to increased drug use. Mothers who were "underacculturated" used more sedatives and tranquilizers, while adolescents who were "overacculturated" used more illicit drugs—e.g., marijuana, etc.. Szapocznik and Kurtines attributed their findings to the lack of fit in the Miami context. They suggested that it is not the retention of the ethnic characteristics or the assimilation into the host society that is pathological *per se*. Rather, it is the lack of bicultural involvement that is maladjustive because it renders members of ethnic minorities inappropriately monocultural in a bicultural context. The implication here is that participants need to have skills that correspond to the pressures and demands in their context—the greater the fit between individual and context, the better the adjustment.

Finally, a small handful of research examined cultural fit directly and found that cultural distance (the inverse of cultural fit) predicted social difficulty—i.e., difficulty managing everyday situations (Searle & Ward, 1990; Furnham & Bocher 1982) as well

as anxiety, depression, and medical consultations (Ward & Searle, 1991; Babiker, Cox & Miller, 1980).

With the exception of the latter group of research (regarding cultural distance), most studies *imply* the importance of cultural fit in facilitating adjustment, rather than measure cultural fit directly. Moreover, very few studies empirically test cultural fit in the context of acculturation-adjustment relationships. Hence, the findings in this study correspond nicely to the overall themes of previous research (as noted above), but they also complement (and differ from) previous research by providing empirical evidence for aspects that were before mostly descriptive, explanatory or implied.

In sum, the findings in this section help to account for the direct impact of cultural fit on adjustment and on acculturation-adjustment links. These findings are particularly important because they support the core tenet of the ecological model—i.e., that it is imperative to examine context and cultural fit when studying acculturation-adjustment links. It is not so much the cultural involvement but the cultural fit—that facilitates or impedes adjustment (to local—i.e., family, peer, schools—demands).

This section helped to substantiate the more global themes of context and cultural fit. Having substantiating that, the next section moves to the smaller, more molecular mechanisms of the model—i.e., to themes of competence, belongingness, and contextual perceptions.

DICUSSION of H3 ~ Competence, belongingness and contextual perceptions.

Overall findings and interpretations:

With the exception of some associations, the findings in H3 further supported the ecological model by delineating its more specific mechanisms. The ecological model asserts that cultural involvements are proxies to one's sense of competence and belongingness in that culture. Moreover, the extent to which one's cultural involvements, competence, and belongingness match the needs and demands of their context, the greater the cultural fit and in turn, the better the adjustment.

Findings confirmed this overall reasoning in several ways: for one, youth who were more involved in the U.S. culture reported a greater sense of competence and connection in the American culture, while those more involved in the ethnic culture reported more ethnic competencies and connections (compared to those who were less involved).

Furthermore, youth who were more involved, competent, or connected in the U.S. culture were more likely to fit in their cultural contexts in Lansing, while those more involved, competent, or connected to the ethnic culture were less likely to fit in (than those who were less involved). Given that Lansing is a primarily "American" context (as evidenced by descriptives in the introduction), it is presumed to require more U.S. skills and involvements. Hence, it would make sense that IUS, U.S. competencies, and U.S. connections may be more useful for our sample, and thus more likely to facilitate a sense of cultural fit than would ethnic involvements, competencies, or connections.

Finally, as moderated findings further support: when youth perceived their context to be predominantly "American" (vs. not American), U.S. competence and belongingness were more strongly and positively linked to cultural fit, while ethnic competence was more strongly and negatively linked. These findings underscore the importance of context. They suggest that—in contexts that are predominantly American (as perceived by youth), U.S. competencies and belongingness may be more useful in facilitating cultural fit, while ethnic competencies may be less useful.

In sum, it is worthwhile to note that U.S. competence and belongingness positively predicted cultural fit while ethnic competence negatively predicted fit—in a primarily American context (via descriptives of Lansing). It is also worthwhile to note that such links were strengthened in the predicted direction when youth's perceptions of their contexts were taken into account—i.e., when students perceived their contexts to be predominantly "Anglo-American." Taken together, these findings suggested the importance of context (be it in descriptives or contextual perceptions). It is context that determines the magnitude and importance each cultural index (e.g., cultural involvements, competence, belongingness) has on cultural fit and consequently, on adjustment.

In so doing, these findings demonstrated the more specific mechanisms of the ecological model. They not only suggested that acculturation are proxies to one's sense of competence and belongingness, but also they delineated how indices of contextual perceptions, cultural involvements, cultural competence, and cultural belongingness can influence the acculturative processes leading to adjustment.

Conflicting findings:

In contrast to the majority of support for the ecological model, there were two sets of findings that demonstrated mixed or conflicting findings: One, ethnic competence and belongingness were positively linked to one index of cultural fit—fit-dimensions (as predicted) but negatively linked to the second index—fit-environments (against predictions). Thus, it is not conclusive whether ethnic competence and belongingness facilitate or impede cultural fit.

It is unclear as to why the negative correlations emerged (i.e., negative correlations between fit-environments and ethnic competence and belongingness). Some possibilities, however, may involve the measurement of the fit indices. Though a detailed analysis of the two indices are beyond the scope of this research, it is worthwhile to note that fit-dimensions is a 7-item scale that delineated specific aspects of one's sense of fit (e.g., friendships, food, worldviews, etc.), while fit-environments is a 5-item rating of one's overall fit in different contexts—(i.e., family, friends, peers, school, Lansing, overall). Since fit-environments is a global measure, it allows participants to define their sense of fit—based on their own terms or ascriptions. This difference in ascription—between youth's own definitions vs. more specific and delineated aspects (in fit-dimensions)—may have accounted for the different findings. In other words, results may have been due to a conceptual/measurement difference between global vs. specific dimensions of cultural fit between the two indices.

Findings could also be due to differences in psychometric testing of the indices. In contrast to the fit-dimensions scale (which has been tested in previous studies), the fit-environments scale was newly constructed and thus, not tested before outside of pilot

studies. Hence, the mixed findings may be due in part, to the relative lack of testing in the fit-environments scale. Though preliminary analyses suggest that both fit indices were reliable and valid; future research, should examine these indices in greater detail.

However, it may be worthy to note that for most of the associations, cultural fit (both fit indices) were linked in the expected directions. It was only these two negative correlations—i.e., fit-environments and ethnic competence, fit-environments and ethnic belongingness—(out of 12) that conflicted with initial predictions.

A second set of findings that seemed conflicting concerned the fact that contextual perceptions moderated some links with cultural fit in the predicted direction but others in the opposite direction than predicted. More specifically, these conflicting findings indicated: (1) there was a stronger, more positive link between ethnic competence and cultural fit (fit-environments) when youth perceived their context to be predominantly American rather than low American and (2) that there was a stronger, more positive link between IUS and cultural fit (fit-environments) when youth perceived their environment to be low American (versus high American). In short, these links do not correspond to their context.

It is unclear why these results emerged or what they could mean. It could be that the findings (along with those confirming the ecological theory) occurred by chance since numerous combinations were tested, and only a small number emerged significant. These results could also be due, in part, to the psychometric integrity (or lack thereof) of the fit-environments and contextual perceptions items. These items were constructed specifically for this study, and they have never been tested before, aside from some pilot

studies and preliminary analyses. The fact that they are in the early stages of psychometric development could render the validity and findings suspect.

Other interpretations (for H3 findings):

While most of findings above may support the assertions of the ecological model, other interpretations may also be valid. For one, just as competence and belongingness can lead to acculturation (as suggested above), the reverse could also be true. That is, cultural competence and belongingness can lead to cultural involvements. Youths' competencies and connections in the U.S. (or ethnic) cultures may lead them to feel more comfortable, and thus, to participate more in the respective U.S. (or ethnic) cultures.

Similarly, just as cultural involvements, competence, and belongingness could lead to cultural fit (as suggested above), the reverse could also be true. That is, youth's sense of cultural fit in Lansing could lead them to become more involved, competent, and connected in the U.S. culture and less so in the ethnic culture. Since Lansing is predominantly American, those who fit into this context more may become more involved in the U.S. culture and more competent in U.S. ways and more connected to U.S. people. For the same reason, they may be less likely to be ethnically involved, competent or connected.

These explanations are not mutually exclusive, and it is possible that they all have some validity. However, it is important to note that such explanations should be interpreted with caution—since there was no alternative model tested. To build on the present study future research should test more detailed and specific aspects of the model and its alternative theories—in comparison to other, viable models.

H3: Conclusions ~

Overall, the findings in this section correspond with the main themes in current literature. However, they do not correspond exactly since most research allude to these concepts (e.g., competence, belongingness, cultural fit), rather than measure them directly (Rogler, Cortes, & Malgady, 1991; Gil &Vega, 1996; Mishra et al., 1996; Weinberg, 1961). Few (if any) to date have empirically examined links between: acculturation and competence, acculturation and belongingness, acculturation and cultural fit, competence and cultural fit, or belongingness and cultural fit. Moreover, no research has examined how context moderated such links.

In sum then, this set of findings furthers theory by measuring specific components and by providing evidence for specific processes that were before only descriptive or explanatory. They suggest how contextual perceptions, cultural competence, cultural belongingness, and cultural fit can fit in the acculturation processes that lead to adjustment.

DICUSSION ~ CONTRIBUTIONS

This study offers several implications—both theoretically and practically. Theoretically, the most important contribution is the development of and empirical support for the ecological model. The model is significant because it contributes to theory and understanding in an area that is conflicting. It is my contention that the contradictions in the acculturation literature (and thus, the impediment to understanding the adjustment of minority populations) is due, in part, to the fact that we have focused only on the outcomes of acculturation, rather than the mechanisms leading to such outcomes. Moreover, we have studied acculturation-adjustment links in "isolation," devoid of their sociocultural and historical contexts. Hence, the ecological model is vital because it addresses (and demonstrates evidence for) both the mechanisms and the contextual factors important in understanding acculturation-adjustment links. Furthermore, it empirically examined aspects that were before only descriptive or explanatory (i.e., sense of cultural fit, cultural belongingness, cultural competence, perceptions of contextual resources, etc.). In all these ways, the ecological model helps to unravel the conflicting findings of current literature and to organize the fragmented parts into a more coherent understanding.

A second, related contribution centers on the use of two different ethnic groups. The use of both Vietnamese and Mexican samples allowed us to (1) see how the processes work in different groups and (2) to test the ecological model (and varying contextual factors) more fully. It is interesting to note that findings suggest that there are unique concerns specific to each ethnic group (e.g., as indicated by different adjustment patterns) but also that there are universal, more general processes that transcend and link the experiences of all minority youth, regardless of their demographic, sociocultural, and historical differences. Hence, the use of two groups enabled us to explore concern

specific/unique to each group, to account for the complexities of the model, and to further examine its generalizability across groups.

A third contribution of this research is the delineation and study of context. The present research examined context in several was—via descriptives and personal communications, via measurements of several indices (e.g., sense of cultural fit, experiences of discrimination, contextual perceptions, adjustment indices that reflect different subcontexts) and via statistical comparisons (of groups with different contextual resources, of ethnic group's moderation with acculturation-adjustment links). Our study of contextual factors attempted to provide a more rounded look at contextual influences, incorporating both descriptive and empirical as well as objective and subjective measures. This study helped not only to delineate ways in which one can begin to examine context but also to provide empirical evidence for the importance for aspects that before were only descriptive.

A fourth theoretical contribution is its support of the 2-dimensional approach toward understanding acculturation. As noted in previous research (e.g., Nguyen et al., 1999, Sanchez & Fernandez, 1994, Laroche et al., 1996), part of the contradictory findings of current acculturation research is their divergence in measurements of acculturation (and of adjustment).

The conceptual errors of the bipolar, unidimensional model, especially, may mask the complexities of relationships that occur in the acculturation process. As evidenced by the data, the independent measurements of involvements are necessary to understand the acculturation-adjustment relationships. This two-dimensional approach seems better able to explicate the intricate relationships—the positive, negative, additive and/or multiplicative complexities of the acculturative dimensions. In so doing, it may help not

only to clarify the seeming contradictions in past research but also to lead future research and future "understanding" to a more comprehensible body of findings.

A fifth theoretical contribution (in the understanding of acculturation "contradictions") is the study's delineation of the different criterion variables. As suggested previously (Nguyen et al., 1999, Sanchez & Fernandez, 1999), the divergence with which "adjustment" is measured also contributes to seeming contradictions. As with the use of the 2D approach, the use of different adjustment variables in this study, helps to delineate various subcontexts (e.g., family, peers, school) associated with the different indices (e.g., family relations—family context). It also helps to clarify and integrate the complexities of acculturation in a more comprehensible fashion. In essence, it highlights the complexities without making them any more confusing.

A sixth theoretical contribution is the suggestion that mental health or psychological functioning is not just an individual factor. Findings in this study—specifically, the many relationships with cultural involvement—caution researchers and clinicians to acknowledge the often-neglected cultural and contextual influences of adjustment (as suggested by the ecological model).

Practical implications of this study include the development of several cultural scales. Although there have been some suggestions for the utility of certain cultural concepts (e.g., cultural fit, cultural competence, cultural belongingness, contextual perceptions, 2D acculturation), there have been very few scales developed to validly test such assertions. The development of the present scales provides researchers actual tools in measuring the cultural indices (as mentioned above), in Vietnamese and Mexican adolescents.

In addition to scale development, another (practical) contribution was to develop more statistics involving minority youth, particularly those in suburban areas. Most research that have been conducted with minority populations thus far, have been with adults and/or with groups in large metropolitan areas (e.g., L.A., Miami, etc.). This research was somewhat unique it that it focused on minority children living in a predominantly Anglo-American context. This study helped to develop basic descriptives regarding the adjustment and mental health of Vietnamese and Mexican adolescents in a suburban area.

A final practical implication is the study's contribution towards understanding the adjustment of Vietnamese and Mexican adolescents. Be it with involvements in the U.S. culture, or the ethnic culture, or the "catch-22" situations, parents, teachers, administrators, and politicians alike can benefit from this knowledge. Such knowledge can help parents and teachers to be more responsive to the needs and struggles of Vietnamese and Mexican adolescents, and it can help administrators and politicians, to design multicultural policies in a way that is more helpful to these adolescents.

DICUSSION ~ Limitations and Future Research

As grand as these implications may be, the present study is not without limitations. Five, in particular, merit mention: the attributions of contextual influences, the failure to account for intra-group variations, the preliminary or newness of the scales, the lack of parsimonious analyses, and the different (and perhaps incomparable) methods of administration.

The first limitation centers on the fact that the research may be somewhat global. It does not test the specific characteristics unique to each ethnic group nor important factors and variations within groups (e.g., gender, SES). (Furthermore, it does not account for different subcontexts or segments of assimilation.) Such analyses were beyond the scope of this project since it was designed to be global—i.e., to examine the ecological model overall (in Lansing). However, future research would benefit by studying each group more closely to examine processes unique to their culture. Moreover, it would benefit by examining how variations within groups (e.g., SES, gender, pure vs. mixed ethnicities, etc.) may shape the patterns of findings. In a related way, this study was also global in its focus on the Lansing context; future research would benefit as well from studying the mechanisms in smaller contexts (e.g., family, peers, school) and in varying segments of assimilation.

The second limitation involved attributions to contextual influences. More specifically, this research was limited in its attributions to contextual differences as based on comparisons between the two ethnic groups. Although the two groups did differ in amount of contextual resources (e.g., ethnic communities, densities), they also differed in many other demographic and sociocultural variables (e.g., English proficiencies,

U.S. involvements, cultural practices, types of migrations, SES, etc.). Such differences could also influence the pattern of findings and thus, could confound or limit attributions to how contextual resources relate to acculturation-adjustment links. To account for this, other indices of contextual influences were also assessed. Nevertheless, it would be helpful for further research to compare the same ethnic group (with similar demographics) in different, geographical locations—to further examine the impact of local contexts.

The third limitation is a methodological one. It involves the fact that some students read the questionnaires quietly to themselves in English while others had the questionnaires read aloud to them in Vietnamese. Moreover, as suggested, Mexican youth did not require an interpreter; it was only a small group of Vietnamese students that needed translation (N=20 or 5% of the total sample and 15% of the Vietnamese sample). These methodological differences were difficult to avoid since there were only English versions of the questionnaires and since the resources to translate and back-translate the questionnaires were beyond the capacities of this project. In previous work (Nguyen et al., 1999), an attempt was made to have a verbal administration for the English group, but it was not useful/successful since students went ahead on their own anyways. Thus, the attempt was not made again in this study. In general, however, this methodological difference did not impact findings (as supplemental analyses also confirmed).

A fourth limitation in this study is that the regressions are numerous and somewhat "patchy." Ideally, it would have been better to test the model more parsimoniously via structural equational modeling (SEM). However, it was not possible to do so because of the abundance of variables relative to the (comparatively) limited sample size. Hence, it may be useful for future researchers to attain larger samples to evaluate the model in its

entirety. It may also be useful to test selected aspects of the model (with the current N) and to compare the ecological model to other, viable models.

A fifth limitation in this study is the relative novelty of the scales (e.g., cultural fit, cultural competence, cultural belongingness, contextual perceptions). Because of the paucity of such scales in current literature, many of these indices had to be constructed for the first time—specifically for this study. Hence, these scales have not been tested before, except in our own pilot studies and preliminary analyses. Overall, these measurements have demonstrated good reliability and validity. However, they are preliminary, and thus, it would be helpful to further develop and strengthen them.

The final limitation in this project is that it focuses entirely on students' self-reports, as based on questionnaires. Although the advantage of this approach is to gain a large amount of information in the most time- and cost-effective manner, the disadvantage is that it restricts the type of information culled—since it is based only on one perspective and only on questions deemed important by the researcher. In future work, it would also be helpful to: (1) collect information from an array of sources (e.g., teachers, parents, siblings, peers) and (2) to talk more in-depth with participants (e.g., via open-ended questions, interviews, focus groups, qualitative studies, etc.). Using multi-sources and formats would help to complement self-report questionnaires from youth. It would also help to explore issues important to participants, as stated by participants. However, it may be worthwhile to note that in our pilot studies, we have talked with students and family members more personally (via interviews)—and as a result, have integrated their responses and concerns into the questionnaires.

Further Research (continued, without limitations)

In addition to the directions suggested above, other directions could also include: a longitudinal study to discern causal patterns in the model. Given the correlational findings discussed above, it is difficult to determine the direction of cause and effect. A longitudinal study will help to discern the direction of these relationships, and to further explore how the acculturation and adjustment change over time/vary with age.

Another direction could involve testing ecological model in other minority groups. How do findings for Vietnamese and Mexican adolescents compare to those of other groups? Do these processes of acculturation occur in all minority children? In what way and to what extent do findings here differ for other refugees or immigrants? Other Asians? Or Hispanics? Or Native-Americans? Do these processes transcend and link the experience of all minority youth? The emphasis here is to not to compare group differences *per se*, but to better understand factors and mechanisms that are important to the adjustment processes of each group. For example, how would the integrity of the ecological model vary within (e.g., Puerto Rican, Cuban, Mexican) and across pan-ethnic/racial categories (e.g., Hispanic, Asians)? How much do ethnic groups differ because of different sociocultural characteristics vs. how much do they stay the same because of shared experiences in U.S. (e.g., prejudices, discrimination, etc.)? How would these similarities and differences (shared experiences vs. cultural differences) impact the processes in the ecological model?

In contrast to examining the global contexts of Lansing, future research could also focus on smaller, ecologies—such as family, peer, and school contexts. Examining these subcontexts more closely would help researchers to (1) map the different segments in

which youth are assimilating and (2) to understand the different processes at work within and between contexts.

For example, it might be interesting to explore the dynamics of the family context. How does acculturation affect the quality of family relations, and in turn, the well-being of its individuals members (parents, children, husband, wives)? Moreover, how do parent-child relations change over time and with different stages of development? How do these changes affect their quality of parent's life and their vision for their children's life? What are parents' perspectives on the process acculturation in themselves? In their children? How do their perspectives compare and contrast with their children's? Finally, how do processes within the family interface with those in school and peer contexts?

Similar kinds of questions could be asked of peer and school contexts as well. Moreover, it would be interesting to (1) compare how the demographics in peer and school contexts reflect those in Lansing, (2) to explore the different segments of "assimilation" youth are taking in these contexts, (3) to examine how these processes interact with those in other contexts and (4) to discern the differential vs. interactive effects each context has on individuals' well-being.

Finally, another direction future research could take is to explore potential applications for the ecological theory. In so doing, researchers could collaborate with those in the community and the school system to learn from them (gain their insights and perspectives in working with minority youth), to study issue that they deem important, and to coordinate potential applications for acculturation research.

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Appendix A: IEC * IUS Interactions

Regression Analyses of Interaction for Depression, Self-esteem, Delinquent Attitudes, and Relations with Teachers (for Mexican and Vietnamese Groups)

Group	Depression		Self-esteem		DQ		Teacher Relations	
	F-ratio	Beta	F-ratio	Beta	F ratio	Beta	F ratio	Beta
Regression of Adjustment Indices on IUS								
Low IEC	F(1,175) = 6.02*	-.18	F(1,175) = 22.73***	.34	F(1,174) = 19.72***	-.32	F(1,175) = .69	.06
Med IEC	F(1,158) = 6.47*	-.20	F(1,158) = 10.76**	.25	F(1,158) = .30	-.04	F(1,158) = 6.68*	.20
High IEC	F(1,158) = .48	.06	F(1,158) = 1.82	.11	F(1,158) = 1.62	-.10	F(1,158) = 11.41**	.26
Regression of Adjustment Indices on IEC								
Low IUS	F(1,170) = .58	-.06	F(1,170) = .43	.05	F(1,170) = 2.18	-.11	F(1,170) = .01	.01
Med IUS	F(1,150) = 8.54**	.23	F(1,150) = .20	-.04	F(1,149) = .35	-.05	F(1,150) = 1.09	.09
High IUS	F(1,171) = 11.41**	.25	F(1,171) = 8.77**	-.22	F(1,171) = 6.80*	.20	F(1,171) = .95	.07

* $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix A: IEC * IUS Interactions

Regression Analyses of Interaction for GPA, Math, Reading, and Academic Aspirations (for Mexican and Vietnamese Groups)

Regression of Adjustment Indices on IUS

Group	GPA F-ratio	GPA Beta	Math F-ratio	Math Beta	Reading F ratio	Reading Beta	Aspirations F ratio	Aspirations Beta
Low IEC	F(1,165) = 12.43**	.27	F(1,118) = 7.31**	.24	F(1,117) = 18.64***	.37	F(1,174) = 18.78***	.31
Med IEC	F(1,143) = 4.11*	.17	F(1,106) = 3.57 [c]	.18	F(1,101) = 4.05*	.20	F(1,158) = 7.02**	.21
High IEC	F(1,140) = .04	.02	F(1,106) = 16.22***	-.37	F(1,100) = 6.74*	-.25	F(1,158) = 8.17**	.22

Regression of Adjustment Indices on IEC

	GPA F-ratio	GPA Beta	Math F-ratio	Math Beta	Reading F ratio	Reading Beta	Aspirations F ratio	Aspirations Beta
Low IUS	F(1,155) = 1.65	.10	F(1,112) = 4.56*	.20	F(1,104) = 1.94	.14	F(1,169) = 7.95**	.21
Med IUS	F(1,137) = .18	-.04	F(1,104) = 2.64	-.16	F(1,104) = 4.92*	-.21	F(1,150) = 6.28*	.20
High IUS	F(1,156) = 12.95***	-.28	F(1,114) = 20.47***	-.39	F(1,110) = 21.54***	-.41	F(1,171) = .79	-.07

* $p < .05$, ** $p < .01$, *** $p < .001$, [c] $p = .06$

Appendix A: IEC * IUS Interactions

Regression Analyses of Interaction for Self-Esteem, GPA, and Math (for Vietnamese Group)

Group	Regression of Adjustment Indices on IUS: Self-Esteem F-ratio	Self-Esteem Beta	GPA F ratio	GPA Beta	Math F ratio	Math Beta
Low IEC	F(1,56) = 22.89***	.54	F(1,51) = 7.39**	.36	F(1,32) = 4.81*	.37
Med IEC	F(1,56) = 4.70*	.28	F(1,46) = .01	-.01	F(1,28) = .94	.18
High IEC	F(1,48) = .96	.14	F(1,45) = .24	.07	F(1,33) = 10.03**	-.49

	Regression of Adjustment Indices on IEC: Self-Esteem F-ratio	Self-Esteem Beta	GPA F-ratio	GPA Beta	Math F-ratio	Math Beta
Low IUS	F(1,68) = 2.52	.19	F(1,58) = .68	.11	F(1,41) = 1.95	.22
Med IUS	F(1,52) = 1.10	-.15	F(1,47) = .43	-.10	F(1,24) = 5.43*	-.44
High IUS	F(1,40) = 4.96*	-.34	F(1,37) = 5.39*	-.36	F(1,28) = 8.46**	-.49

* $p < .05$, ** $p < .01$, *** $p < .001$.

Appendix A: IEC * IUS Interactions

Regression Analyses of Interaction for Math, Reading and Academic Aspirations (for Mexican Group)

Group	Math		Reading		Academic Aspirations	
	F-ratio	Beta	F ratio	Beta	F ratio	Beta
Regression of Adjustment Indices on IUS						
Low IEC	F(1,85) = 2.91	.18	F(1,83) = 9.31**	.32	F(1,117) = 10.04**	.28
Med IEC	F(1,77) = 7.57**	.30	F(1,72) = 2.79	.19	F(1,101) = 6.50*	.25
High IEC	F(1,72) = 6.45*	-.29	F(1,68) = 8.00**	-.33	F(1,109) = 3.70 [c]	.18
Regression of Adjustment Indices on IEC						
Low IUS	F(1,70) = 1.47	.14	F(1,64) = 3.35 [d]	.23	F(1,100) = 7.23**	.26
Med IUS	F(1,79) = .39	-.07	F(1,78) = 2.05	-.16	F(1,97) = 4.09*	.20
High IUS	F(1,85) = 8.81**	-.31	F(1,81) = 9.02**	-.32	F(1,130) = .13	-.03

* $p < .05$, ** $p < .01$, *** $p < .001$, [c] $p = .06$, [d] $p = .07$.