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AUTONOMY AND CONNECTEDNESS IN ASIAN-AMERICAN UNIVERSITY STUDENTS

By

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ABSTRACT

AUTONOMY AND CONNECTEDNESS IN ASIAN-AMERICAN UNIVERSITY STUDENTS

By

Linda P. Juang

The purpose of this study was to examine issues of autonomy and connectedness in Asian-American university students. The "goodness of fit" model and the concept of acculturation were used to guide the study. All 99 participants were of Asian descent, with parents originating from either China, Japan, the Phillippines, Thailand, Korea, or Vietnam. The majority (87.9%) were second generation. The mean age was 19.8 years and the range was 17 - 24 years. The results indicate that late adolescents who strongly endorsed Asian attitudes and values reported less behavioral and emotional autonomy compared to those less Asian. Late adolescents who experienced either low or high autonomy, and, concurrently remained connected to their parents, fared better than those not connected to their parents. In addition, late adolescents who experienced a good fit with parental expectations of autonomy (i.e, the desires of the late adolescent were congruent with the expectations of the parents regarding the timetable of autonomy behaviors) reported higher levels of self-esteem and emotional closeness to their parents, and lower levels of depression, behavior misconduct, and insecurity with parents, compared to their poor fitting counterparts. Furthermore, late adolescents who better fit into the cultural context (of this Midwestern university town) reported lower levels of depression and higher levels of self-esteem than those who poorly fit. It is proposed that the "goodness of fit" model and the concept of acculturation are useful in the investigation

of autonomy development and subsequent adjustment in Asian-American late adolescents.

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Chapter 1

INTRODUCTION

Throughout the lifespan, individuals deal with the issue of autonomy (Baltes & Silverberg, 1994; Erikson, 1963; Steinberg, 1990). Autonomy is especially salient during adolescence as expectations and opportunities for independence broaden at this time. The successful development of a healthy sense of autonomy, while simultaneously remaining connected to one's parents, is a major task to negotiate.

The development of autonomy is one potential area of disagreement for adolescents whose parents are immigrants. Sue and Sue (1990) state that adolescents of immigrant parents are likely to experience conflict due to the stressfulness of attempting to "balance/reconcile traditional values with nontraditional values which, at certain times, are at odds with one another". Parents immigrating to a new culture must deal with the reality that while some of their values will be passed on to their children, their children will also acquire values in the new culture that may differ from their traditional values. This discrepancy in cultural values may create a context where values clash.[1]

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[1]For instance, Sue and Sue (1990) describe in one of their case studies a 20-year old Asian-American male who was experiencing severe headaches and bodily complaints. He sought counseling when there seemed to be no medical, organic reasons for his symptoms. It became apparent he was upset that his parents expected him to graduate quickly and find a good job, and thereafter assume financial responsibility for

Nevertheless, not all adolescents of immigrant parents undergo such struggles. This study seeks to understand the meaning and implications to the variations in Asian immigrant families in the United States regarding the development of late adolescent autonomy.

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his younger brothers and sisters. He viewed this as a burden that was becoming overwhelming. It was a conflict of independence between the young adult and his parents where each held differing values, or beliefs on the appropriate level of autonomy regarding decisions on career and family responsibilities. In other words, as a result of living in the United States this young adult acquired values regarding independence that were incongruent to his parents' values.

Chapter 2

LITERATURE REVIEW

The review of literature begins by defining autonomy and describing how the conceptualization of autonomy has changed over time. Then, literature on the two concepts that are used to guide the study - goodness of fit and acculturation - will be presented.

Definition of Autonomy

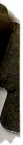
In order to clarify the process of the development of autonomy, one must first understand the meaning of this construct. In reviewing the literature, it is clear that this is not a simple task. Not only is there an assortment of labels describing this construct, there is also an assortment of definitions. Leaper (1989) has compiled a list entitled "The Yin and Yang of Psychosocial Development" that documents the variety of labels formulated over seven decades regarding autonomy (the individual domain) and connectedness (the interpersonal domain). To give a few examples, Loevinger (1976) conceptualized these as individuality and mutuality, Grotevant and Cooper (1986) as individuality and connectedness, Hill and Holmbeck (1986) as autonomy and attachment, and Selman (1981) as autonomy and intimacy.

In addition to the many different labels for autonomy, there exist many definitions.

There is not a consensus among researchers regarding an exact definition. Different investigators have focused on different aspects of autonomy depending on their area of interest. However, one point of agreement is that autonomy is a multidimensional construct. Thus, the various conceptualizations of autonomy are related to each other on some dimensions, yet differ on others.

Steinberg and Silverberg (1986) have defined autonomy as encompassing: 1) the relationship with the parent, or emotional autonomy, 2) resistance to peer pressure, and 3) a subjective sense of self-reliance. Other researchers have defined autonomy as self-governance and self-regulation (Ryan & Lynch, 1989), as psychological separation (Hoffman, 1984), as individuation, where individuation is defined as becoming distinct within the relational context in which s/he is embedded (Karpel, 1976), and also as a relationship property comprised of a balance between individuality (self-assertion and separateness) and connectedness (permeability and mutuality) (Cooper, Grotevant & Condon, 1983). To summarize, autonomy has been defined by researchers as self-reliance, as self-reliance in the context of a relationship, and as self-reliance and connectedness in the context of a relationship.

Autonomy development involves two domains: autonomy with respect to parents, and autonomy with respect to peers. Autonomy with respect to peers can be defined as resistance to peer pressure. Autonomy with respect to parents can be divided into three parts: 1) emotional autonomy from parents, 2) behavioral autonomy from parents, and 3) connectedness to parents. This review will focus on the three aspects of autonomy development in relation to parents.



The Changing Perspectives on Autonomy

Steinberg (1990) has traced the evolution of various perspectives on the development of autonomy in adolescence. Researchers' views of autonomy have evolved from focusing exclusively on autonomy from parents to one that emphasizes both autonomy and connectedness in relation to parents. The first perspective is the psychoanalytic view which was mainly developed through the ideas of Anna Freud. Her ideas led researchers to describe and understand the *detachment* process of adolescents from their parents. In this view, autonomy held a negative connotation. The detachment process was characterized by the very familiar notion of "storm and stress" during adolescence. However, there is much evidence that harmony, not dissonance, is by far the norm of family life during this period (Douvan & Adelson, 1966; Montemayor, 1983).

The second perspective that Steinberg describes is the "neoanalytic view." For example, Blos (1979) views adolescent autonomy as a process of individuation. Unlike the psychoanalytic view which emphasizes detachment in a negative light, autonomy, or individuation, carries with it a positive connotation where its development is a desired achievement. However, it can only be achieved by breaking away from parents and severing the now inappropriate infantile ties. In Blos' perspective there is no emphasis on connectedness. This leads to what Steinberg holds is the third, revised perspective that emerged in the mid-70s.

This final perspective acknowledges that major transformations in family relations occur during the adolescent years, however, "it challenges the view that these realignments necessarily occur against a backdrop of...emotional detachment" (Steinberg,

1990). This view does not support the notion of storm and stress during adolescence, or complete detachment from parents, is normative. Instead, there are several different emphases that Steinberg clarifies. First, that most adolescents develop responsible autonomy without severing emotional bonds to their parents. Second, that demographic and individual characteristics influence the realignment of the parent-adolescent relationship. The third emphasis is that other contextual factors, such as the psychological development of the parents, must be taken into account in order to better understand the changes in family relations. The fourth emphasis is that the family is a system of interrelationships, with multiple and reciprocal directions of influence. These four emphases depict a developmental contextualist perspective on autonomy.

In summary, the view of autonomy has gradually shifted over time as researchers attempt to unravel this phenomena. Originally, autonomy from parents was perceived as a detaching, negative, stressful process during adolescence. The concept then changed so that autonomy was viewed as a positive process that also involved connection. Finally, this view has evolved to recognize that autonomy from and connection to parents during adolescence can be either a positive or negative process depending on various contextual factors in which the adolescent develops.

Autonomy and Connectedness

Various studies address some, but not all, dimensions of autonomy that adolescents experience with their parents. Most have emphasized the detachment, or self-reliance aspect, while ignoring the connectedness dimension of autonomy. The following studies lend support to the notion that connectedness is an important component in

understanding autonomy in adolescence.

Lamborn and Steinberg (1993) examined emotional autonomy in the context of a supportive adolescent-parent relationship. They identified four categories of adolescents: *individuated*, those with a high degree of emotional attachment to their parents and also a high degree of support from their parents; *detached*, those with high emotional attachment and low support; *connected*, those with low emotional attachment and high support; and *ambivalent*, those with low emotional attachment and low parental support. The results revealed that individuated, compared to detached, connected, or ambivalent adolescents, experienced the best outcomes regarding psychosocial maturity (e.g., having pride in being able to complete tasks, adopting an appropriate work attitude) and academic competence. Nevertheless, individuated adolescents also reported experiencing more internal distress than connected adolescents. The researchers argue that having a higher level of emotional autonomy may be somewhat stressful for the adolescent. However, the successful management of this freedom may lead to healthier adjustment later in life.

Another group of researchers (Cooper et al., 1983) also investigated the effects of individuality and connectedness on psychosocial competence. Individuality was comprised of two elements, self-assertion (having own opinions and being able to communicate them) and separateness (possessing the ability to express differentness of self from others). Likewise, connectedness consisted of two elements, permeability (i.e., being open to the views of others) and mutuality (being sensitive or respectful of others). Cooper et al. (1983) concluded that adolescents who express a *balance* between individuality (where the adolescent is encouraged to explore and develop him or herself) and connectedness

(where the adolescent has a "secure base" from which to explore) in the parent-adolescent relationship will experience the most adaptive outcomes (e.g., being capable of expressing their own separate opinions and, at the same time, understanding others' points of views).

Sullivan and Sullivan (1980) tested how adolescent-parent separation (leaving for college) affected their relationship. Only males were included in this particular study. The results showed that these late adolescents experienced an increase in affection, communication, satisfaction, *and* at the same time, an increase in functional autonomy in relation to their parents. These late adolescents were becoming more independent while simultaneously strengthening their emotional ties to their parents.

Finally, Frank, Pirsch, and Wright (1990) found that adolescents who were insecure or disengaged from their parents reported lower levels of emotional autonomy from their parents. In contrast, those adolescents who experienced greater closeness and less insecurity in relation to their parents reported greater levels of autonomy. In other words, autonomy flourished in the context of a supportive environment.

To conclude, investigating both processes of becoming autonomous while remaining connected are needed in describing the changing parent-adolescent relationship. A more complete picture of autonomy can be constructed by adopting a multidimensional approach where multiple aspects of autonomy are measured.

The next section will focus on literature that has involved Asian-American autonomy development. It is argued that Asian and American cultures differ in their views on autonomy, and, as a consequence, some Asian-American late adolescents may have difficulty integrating these two competing viewpoints.

American and Asian Cultures Contrasted

American and Asian[2] cultures differ from each other in two major ways. For one, there is a collectivism versus individualistic orientation difference between Americans and Asians (Triandis, 1988; 1994). In addition, Asians are deeply influenced by Confucianism and the notion of filial piety. These two world views influence the way individuals of Asian culture view autonomy concerning the age-appropriateness of certain behaviors and the appropriate level of emotional autonomy and connectedness.

Collectivism versus individualism

In Asian societies the welfare of the community is emphasized rather than the individual. Group needs take precedence over individual needs. Moreover, the expression of individual needs and desires are considered selfish (Matsuoka, 1990). What is valued is conformity, not independence. For example, the Japanese have a saying that exemplifies their belief in collectivism: "The nail that sticks out gets pounded." Individuals who adopt the perspective of collectivism will emphasize maintaining connectedness to the family and to the community, rather than autonomy (Hui & Villareal, 1989).

In contrast, the notion of individualism operates in the United States. The needs and rights of an individual are emphasized. Self-reliance, independence and personal freedom are positively valued and emphasized (Rosenthal & Bornholt, 1988).

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[2]The use of the terms "American" and "Asian" in no way suggests that these are homogeneous groups. Furthermore, it is recognized that there is no "typical" Asian-American late adolescent. However, because this study aimed to understand Asian-American late adolescents in general, it was considered appropriate to use the term "Asian" to describe Asians of various backgrounds.

Confucianism and filial piety

The family as well as the community is primary to the individual in Asian societies. Confucianism and the concept of filial piety is central in understanding the relationship between a parent and child in Asian families (Chao, 1994). Sih (1960) describes filial piety as "loyalty, respect, and devotion to parents. It represents one of the basic social and religious concepts of Chinese people. It is considered the virtue of all virtues and the soul of Chinese culture." Honoring and obeying a parent's wishes are of utmost importance (Ho, 1986).

Traditionally, the Asian culture has placed greater emphasis on achieving one's identity and sense of worth through close relationships with the family and also through being a member of an established lineage and extended family system (Matsuoka, 1990). Family interests are placed above personal interests (Sue & Sue, 1990). For example, an adolescent may be persuaded to choose a particular career (sometimes one that he or she may not particularly enjoy) that the parents select because it is seen as the most beneficial to the family.

Another example that illustrates the primacy of the family is the way in which members address one another. Unlike Western cultures, the last name is stated first followed by the first name, an indication of the importance of family over the individual. Again, the encouragement of autonomy and independence is not central in this framework of beliefs. Asian parents who hold these traditional values may desire and encourage autonomy expectations that are incongruent with the expectations or values that their Asian-American adolescents are internalizing.

Degree and Timing of Autonomy

Researchers studying the patterns of competence and adjustment among adolescents of various ethnic groups, found that Asian-Americans scored lower on self-reliance scales than European-Americans (Lamborn, Mounts, Steinberg, & Dornbusch, 1991). This supports the notion that Asian parents place a greater emphasis on connectedness rather than independence. In addition to being less functionally autonomous, Asian-Americans have a later timetable regarding behavioral autonomy.

Feldman and Rosenthal (1991) compared age expectations of behavioral autonomy in Hong Kong and American adolescents. In general, Hong Kong youths expected behavioral autonomy (i.e., everyday life management in certain domains) at a later age than their American peers. This could be attributed to the culture of collectivism in Asia where conformity, not independence, is highly valued. As such, behaviors demonstrating independence are not required until a later age (Rosenthal & Bornholt, 1988). Indeed, Hong Kong adolescents described their families as "placing less value on individualism, outward success and individual competence, and more value on tradition, prosocial, and well socialized outcomes."

Feldman and Rosenthal's study (1991) examined Asians, not Asian-Americans. However, their findings can be extended to Asian-Americans. This assumption is based on the fact that Asian-American adolescents are still connected to their Asian heritage through their parents. Their immigrant parents may continue to espouse and encourage their adolescents to hold traditional values that contrast those values of the host culture. Hence, it is hypothesized that Asian-American adolescents who are more Asian will

experience a later timetable of autonomy than those who are more Westernized.

Adolescent-Parent Conflict Regarding Autonomy

Due to the differences between Western and Asian cultures, discrepant, and sometimes opposing values, may arise for the adolescent and their parent (Nguyen, 1992). A recent study by Copeland, Hwang and Brody (1996), compared Asian-American, Asian-International and European-American late adolescents on issues involving family relationships and adolescent turmoil. It was found that Asian-Americans described themselves as being in more turmoil over issues of independence (for example, "I feel I have obligations to my mother/father that I wish I didn't have") compared to European-Americans. Late adolescents who felt more conflicted over these independence issues were more depressed, more lonely, and reported lower self-esteem.

Given that adolescents may be more exposed to the ideals of the majority culture (e.g., by attending school and interacting with peers), they may acquire values of the majority culture more quickly than their parents (Rosenthal, Bell, Demetriou & Efklides, 1989). This may create a context where adolescents "clash" with their more traditional parents over attitudes and behaviors (Szapoznik & Kurtines, 1980). To investigate the implications of these clashing values, the "goodness of fit" model will be used.

Goodness of Fit

The concept of "goodness of fit" (Lerner & Lerner, 1983; Thomas & Chess, 1977) is demonstrated to be useful as a means to understand adolescent development and adjustment in several contexts - the home, school, and peers (Lerner, Lerner & Zabski, 1985; Talwar, Nitz & Lerner, 1990). According to the model, the degree of fit between

the adolescent and their surroundings (whether it be physical surroundings, teacher, or parental expectations, etc.) is predictive of adolescent functioning. If there is a poor fit, the adolescent is more likely to experience poor adjustment, such as more negative parent-adolescent relationships or academic troubles (Talwar et al., 1990). In contrast, if there is a good fit, the adolescent is more likely to experience positive outcomes, such as greater academic competence (Lerner, 1983) or more positive relationships with peers (East, Lerner, Lerner, Soni, Ohannessian, & Jacobson, 1992).

Eccles and her colleagues (1991) used a similar model of "stage-environment fit" to hypothesize that the goodness of fit between the amount of control a parent yields and an adolescent's desire for autonomy, will play a part in determining whether an adolescent will experience negative or positive outcomes. These researchers found that poor fit was associated with more conflict in families. For example, in issues such as choosing the amount of involvement with peers or how much say they had in family decision-making, some adolescents desired more autonomy than their parents were willing to give. This lack of fit was linked to lower self-esteem and more misbehavior in the adolescent when compared to adolescents and parents who experienced good fit.

Previous studies on adolescent development that test the goodness of fit model have examined "poor fit" versus "good fit" between adolescent temperamental characteristics and parent's expectations (for example, Talwar et al., 1990). However, it has been found that "poor fit" needs to be defined more precisely. Different types of poor fit (e.g., exceeding parental expectations, or falling below parental expectations) have been linked to different outcomes (Juang, Castellino, & Lerner, 1995; Lerner et al., 1985).

In contrast, Eccles et al. (1991) found that two types of poor fit led to *similar* outcomes. In this study, poor fit was divided into two categories - adolescents who thought their parents exercised too much control, and adolescents who thought their parents permitted too much freedom. Adolescents who wanted more freedom as well as adolescents who wanted more control, relied on their peers more than their parents for advice and were more willing to engage in deviant behavior with their peers. The researchers argue that optimal adolescent development requires changing the level of parental control (i.e., the level of autonomy granted) to fit the changing developmental needs of the adolescent.

No studies are known to have examined the goodness of fit in autonomy expectations of Asian-American late adolescents and their parents. Asian-American late adolescents who hold very different autonomy expectations from their parents experience a lack of fit. The goodness of fit framework can be used to investigate whether Asian-American late adolescents and their immigrant parents hold conflicting autonomy expectations, and, whether there are consequences to an incongruity in expectations. In addition to fit in parental demands, fit in cultural expectations will also be explored. This leads us to consider the second research dimension, acculturation.

Acculturation

Since the 1970's, researchers in psychology have stressed the important role of context in understanding human development. For example, Bronfenbrenner's (1989) ecological systems theory and Lerner's (1984, 1993) developmental contextualism are representative of researchers' current awareness of and interest in the importance of the

dynamic relationship between an individual and his or her environment. This emphasis on context has extended across all stages of the lifespan, including adolescence (Silbereisen & Todt, 1994). The concept of acculturation, with its emphasis on the impact of culture on an individual's development, underscores the importance of contextual influences.

Definition of acculturation

Acculturation has been conceived of as a linear bipolar continuum (Andujo, 1988; Simic, 1987). On one end was the traditional individual who held on to traditional values. On the other end was an individual who denied the traditional culture and completely adopted the values of the new culture. Presently, the concept of acculturation has evolved from a simple continuum to a more complex, two dimensional view of acculturation in which "both the relationship with the traditional or ethnic culture and the relationship with the new or dominant culture are considered, and these two relationships may be independent," (Phinney, 1990). In this view, involvement in both the new culture and the old culture are emphasized. In other words, acculturation is not simply the adoption of new values. It also involves retaining, modifying, and sometimes giving up old values (Berry, 1980; Phinney, 1990).

Four acculturation styles

Berry's (1980) model of acculturation has generated numerous studies that test his concept of different acculturation styles. He states that there are four main styles - marginal, assimilated, traditional (or separated) and integrated (or bicultural). He proposes that these styles depend on two key issues: 1) the extent to which identifying and maintaining cultural characteristics (e.g., attitudes and behaviors) of one's ethnic group are

valued, and 2) the extent to which maintaining relationships with other groups outside of one's ethnic group is valued (see Figure 1). Based on these two issues, four acculturation strategies are identified.

Marginalized individuals feel they belong to neither their ethnic group nor the majority culture. Individuals operating from an *assimilated* style choose to relinquish their ethnicity, or cultural identity, and take on the majority culture's values and behaviors. *Traditional*, or separated individuals exclusively focus on their own ethnic group values and practices and have withdrawn from interaction with the majority culture. Finally, individuals characterized by the *integrated* style strongly identify and are involved with both their own ethnic group as well as the majority culture.

Acculturation styles and the concept of goodness of fit

These acculturation styles can be conceptualized in terms of goodness of fit. For example, Padilla, Wagatsuma, and Lindholm (1984) describe the goodness of fit for immigrant populations:

> "Role expectations in the new social environments may differ from those of the immigrant's native society. Discrepancies in role expectations between the two social systems may create conflict. By adhering to the role expectations of the homeland, the immigrant may not fulfill the role expectations of the new social environment. As a result, the immigrant may be forced to make a decision to adhere to only one social system or to compromise," (p. 296).

In Padilla et al.'s (1984) study, individuals experiencing a lack of fit with cultural demands reported higher levels of stress and lower self-esteem. One can likewise examine the implications for Asian-American late adolescents who fit or do not fit into their social environment.

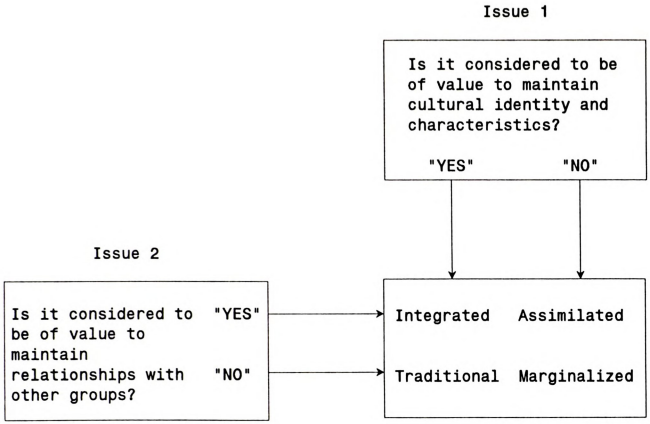

Figure 1. Berry's (1980) Four Acculturation Styles

Acculturation and the timetable of behavioral autonomy

Feldman and Rosenthal (1990) analyzed the acculturation of autonomy expectations for behavioral autonomy. Their sample included Hong Kong adolescents, first and second generation Chinese adolescents residing in the United States and Australia, and European-American and Anglo-Australian adolescents. Second generation Chinese adolescents in both the U.S. and Australia held significantly later expectations for autonomy than their Western counterparts, and were more similar to Hong Kong adolescents. The researchers argue that this is evidence that acculturation does not progress rapidly, and that "the result of extensive contact between Chinese students of immigrant families and their host culture is not one of assimilation, where the values of the host culture are incorporated as a whole and the values of the culture of origin are relinquished," (Feldman & Rosenthal, 1990). In other words, acculturation does not seem to proceed at an equal pace across all realms of autonomy. For example, Chinese adolescents' age expectations for items such as "being able to watch whatever t.v., video or movie show they want," or "stay home alone if sick" were somewhat similar to Western adolescents' age expectations. In contrast, expectations were most dissimilar for items such as "go out on dates," "smoke cigarettes," and "choose your own friends even if your parents disapprove."

Outcomes related to acculturation styles

Several researchers have proposed that the most psychologically adaptive style is the integrated style (LaFromboise, Coleman & Gerton, 1993; Szapocznik & Kurtines, 1980). Nevertheless, when taking context into account, adoption of the other two styles,

assimilation and separation, "may also provide the basis for a good self-concept, if the person is comfortable with these alternatives and is in an environment that supports them," (Phinney, Locher & Murphy, 1990).

For instance, an adolescent who is very assimilated (fits well into Western cultural demands) may do very well in the Midwest, where Asians are relatively few in number. There may be a lack of support for adhering to traditional values in this context. However, for the same adolescent who lives in a diverse context such as California, it may be more advantageous to adopt an bicultural style (fits well in Western as well as Asian cultural demands), as there may be more support for both the traditional and the majority cultures. In another instance, an adolescent may do very well to adopt a separated, or traditional style (fits well in Asian cultural demands) if he or she lives in a strong ethnic community. If this separated adolescent has chosen not to be involved in Western culture, this lack of fit may not necessarily lead to negative outcomes. Phinney et al. (1990) conclude that adopting one style is not necessarily superior to another in terms of mental health. One strategy may work well in one context, but not in another.

Summary of Literature Review

Currently, researchers agree that the development of autonomy from parents is a multifaceted process that also includes maintaining a connectedness to parents. Context (e.g., family and culture) contributes significantly to this process of becoming an independently functioning adult. For example, an individual's degree of acculturation impacts ones' ideas of appropriate autonomy levels. Moreover, there are consequences for adolescents who do not fit well into their parent's, or prevailing culture's, autonomy

expectations. The development of autonomy is one very important aspect of the parent-adolescent relationship that is the focus of this study.

Chapter 3

THE PRESENT STUDY

One purpose of this study is to contribute to the understanding of autonomy development in a different population than previous studies have offered. The primary goal was not to carry out a comparative evaluation, but rather to describe autonomy development in a population rarely seen in the autonomy literature.

The present study addresses the multidimensionality of autonomy by examining both emotional and behavioral autonomy in adolescents. In addition, the goodness of fit of autonomy expectations is explored in the two contexts of family and culture. Most importantly, the relationship between the different dimensions of autonomy and goodness of fit to certain adolescent adjustment variables is investigated.

This study examines the implications for Asian-American late adolescents who experience conflict within their families regarding issues of autonomy. This study also examines how well the Asian-American late adolescent fits into cultural expectations (of the U. S. and Asian cultures) regarding general behaviors and attitudes. In addition, and more specifically regarding autonomy, this study investigates how adolescent acculturation affects the adolescent's emotional and behavioral autonomy. Moreover, the level of agreement between Asian-American late adolescents and their immigrant parents on

behavioral autonomy expectations is explored. Finally, there is an attempt to uncover whether the degree of fit between adolescent expectations in the family and culture relates to adolescent adjustment in terms of the quality of the parent-adolescent relationship, adolescent internal distress, behavior problems, self-esteem, and psychosocial maturity. The following section will define the major variables more precisely before discussing the main research questions and hypotheses.

Definition of Major Variables

Autonomy is defined as an aspect of a relationship rather than as a psychological characteristic (Lamborn & Steinberg, 1993). For instance, an adolescent can be described as being "autonomous". Yet, this description does not distinguish who or what the adolescent is autonomous from. This study defines adolescent autonomy in relation to the adolescent's parents.

This study focused on two aspects of autonomy (emotional and behavioral) and one aspect of connectedness. Emotional autonomy is defined as having a "mature, realistic, and balanced perception of parents that accompanies the acceptance of primary responsibility for personal decision making, values, and emotional stability" (Lamborn & Steinberg, 1993).

Behavioral autonomy is defined as being self-reliant from parents (e.g., having the ability to make decisions regarding day to day life management on one's own) (Feldman & Rosenthal, 1990). For example, adolescents demonstrate behavioral autonomy from their parents by being allowed to stay home alone at night when their parents go out, or being able to choose their own clothes, hairstyle, or friends. These behaviors indicate that the

adolescent can rely on his or her own judgement in these situations. In this study, adolescents assessed the level of behavioral autonomy they experienced while growing up, not of their current level of behavioral autonomy.

Connectedness is defined as the extent to which adolescents feel their parents are supportive and understanding.

Acculturation is defined as the level of involvement in both American and Asian culture. For instance, an adolescent can demonstrate involvement in Asian culture behaviorally by eating Asian food or listening to Asian music. Adolescents can also demonstrate involvement in Asian culture attitudinally by endorsing Asian values, such as believing one should always be respectful to elders. Acculturation is also used as a measure of goodness of fit.

Goodness of fit in the family is defined as the extent to which the adolescent's behavior matches parental expectations of autonomy development. For example, if parents expected their adolescent to adhere to a curfew until he or she was 18 years old, yet the adolescent believed that imposing a curfew after 16 years of age was unreasonable, there is a poor fit between parental and adolescent expectations of autonomy. Or, adolescents may match their behavior to parental expectations with regard to the level of control the parent exercises. A good fit would be evidenced if the adolescent feels his or her parents are granting the appropriate amount of freedom and control. A poor fit would be evidenced with adolescents who feel their parents are not permitting enough autonomy, or, alternatively, not providing enough guidance or control. The next section details the major research questions and specific hypotheses of this study.

Research Questions and Specific Hypotheses

The first research question deals with whether information on fit in two contexts, family and culture, is a better predictor of adolescent adjustment than including information on fit in just one context. Recognizing that the parent-adolescent relationship must be understood in its cultural setting, it is hypothesized that information on goodness of fit with parental expectations and acculturation together, better predict adolescent outcome than simply knowing whether the adolescent fits into familial expectations or cultural expectations alone.

The second question concerns the relationship between acculturation styles and the level of autonomy an adolescent experiences. The hypothesis is that assimilated adolescents will report the earliest timetable of autonomy, that traditional adolescents will report the latest, and that bicultural adolescents will report a timetable later than assimilated yet earlier than traditional adolescents. There is not sufficient literature to support a hypothesis about the direction of the relationship between an adolescent who adopts a marginal acculturation style and their timetable of autonomy. Therefore, an analysis of this relationship is exploratory.

Another hypothesis pertaining to the first research question is that assimilated adolescents will be the most emotionally autonomous compared to bicultural and traditional adolescents, and traditional adolescents to be the least. There is not sufficient literature to justify a supposition regarding the level of emotional autonomy that marginal adolescents will demonstrate. Therefore, an analysis of this relationship is exploratory.

The third research question addresses how different levels of emotional autonomy

and connectedness relate to adolescent adjustment. It is hypothesized that adolescents who experience high or low levels of emotional autonomy in the context of a high level of parental support will show more positive adjustment than adolescents who experience high or low levels of autonomy in the context of a low level of parental support.

The fourth research question explores the implications for a lack of fit between adolescent autonomy expectations and parental expectations. It is hypothesized that Asian-American late adolescents who experience a lack of fit with parental expectations on issues of autonomy will report more negative adjustment than adolescents who experience a good fit with parental expectations.

The fifth research question examines the outcomes associated with the adolescent's acculturation style. It is hypothesized that in the context of a Midwestern state such as Michigan, assimilated and bicultural adolescents will experience more positive outcomes than either traditional or marginal adolescents, with marginal adolescents experiencing the least positive outcomes. The following chapter describes the methods used to test these hypotheses.

Chapter 4

METHOD

Participants

All 99 participants were undergraduate students[3] living in a large, Midwestern University town. The mean age was 19.8 years, and ranged from 17 to 24 years. There were 55 females. The participants were of Asian descent, with parents originating from either China, Japan, the Philippines, Thailand, Korea, or Vietnam. The majority (87.9%) were second generation (e.g., their parents immigrated to the U.S., and the participant was born in the U.S.) The remaining were either first, or 1.5 generation (e.g., they were not born in the U.S. but immigrated with their parents). Most (80.8%) grew up in the Midwest region of the U.S. The average length of time the participants lived in the U.S. was 17.3 years (range = 7 to 24 years; SD = 3.43). The majority of participants (94.9%) grew up living with both parents.

The parents of the participants were a well-educated group: 79.8% of the fathers

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[3]Some may not agree that college students belong to the period of "late adolescence." However, it can be argued that college students, even those in their early 20s, are experiencing a prolonged adolescence, based on the fact that it is still acceptable in our society for this population to delay taking on adult responsibilities (e.g., having a career or starting a family). Furthermore, Erikson (1963) has argued that adolescence is a time for exploration. College students are likely to be engaged in an exploration of their life path choices.

and 26.3% of the mothers were high school graduates, and, of these, 48.5% of the fathers and 41.4% of the mothers were college graduates. The average number of years mothers lived in the U.S. was 20.7 years (range = 4 to 42; SD = 8.20). Fathers, on average, had lived in the U.S. for 22.3 years (range = 7 to 48 years; SD = 9.46).

Procedure

Participants were recruited in several ways. The Coordinator for Asian Pacific Student Affairs of the Office of Minority Student Affairs (OMSA) arranged for the principal investigator to meet with the leaders of the Asian student groups. At these meetings, the purpose and nature of the study were explained. The student leaders were asked to assist the investigator in contacting potential participants, either by announcing the opportunity to participate in the study to members at a regular group meeting, or by providing a list of members to contact. Also, Asian students who attended psychology classes could sign up to participate in the study. By doing so, they received credit for their class. Finally, participants were also recruited via e-mail. Information on the study was sent to over 1000 Asian students. Approximately 8% responded.

In order to obtain a wider range of participants, data were collected under three different survey conditions. Participants either completed the survey in a classroom on campus individually, in groups of 2 - 6, or at home, mailing back their responses. Preliminary analyses were run to check whether survey condition was significantly related to the study variables, thus acting as a covariate. Based on Bonferonni's adjustment to control for an inflation of Type I error, it was found that none of the study variables correlated significantly with survey condition.

Participation in this study was voluntary, with no compensation for the majority of the participants. However, psychology students received credit, and three randomly chosen participants were monetarily awarded ($25, $25, & $50) after completion of data collection.

Consent

See Appendix A for a copy of the consent form.

Measures

The following are self-report questionnaires:

Demographic information. Participants provided information on their age, sex, country and state of birth, generational status, year in college, birth order, length of residence in the U.S., and ethnic identity. In addition, participants provided information on their parents' country of birth, length of stay in the U.S., occupation, and education level.

Autonomy

Behavioral timetable (Feldman & Rosenthal, 1990). This is a 19-item scale that assessed the timetable of expectations for autonomous behaviors by asking what adolescents actually experienced with their parents, and what adolescents *would have liked* to experience. For example, "At what age did you expect to be able to choose your own hair style even if your parents disapproved?" and "At what age would you have liked to choose your own hairstyle even if your parents disapproved?". Participants rated each item on a 5-point scale: 1 = before age 14, 2 = 14-15 years, 3 = 16-17 years, 4 = 18 years or older, 5 = never. Cronbach's alpha for the *actual* timetable and *preferred* timetable were found to be .86, and .85, respectively.

Emotional Autonomy Scale (EAS) (Steinberg & Silverberg, 1986). This measure required adolescents to indicate how strongly they agreed or disagreed (on a 4-point Likert scale) with 20 items concerning four aspects of emotional autonomy - perceives parents as people, parental deidealization, nondependency on parents, and individuation. A sample item is, "My parents and I agree on everything." Cronbach's alpha in this study was .80. *Connectedness* (Stutman & Lich, 1984). This 11-item scale measured the extent to which the respondent felt close to and supported by his or her parents. Respondents indicated how strongly they agreed or disagreed with statements using a 4-point scale. Sample items are, "My parents and I feel like strangers to one another" and "When I am feeling bad I can count on my parents to remind me of my worth." Cronbach's alpha for this sample was .89.

Goodness of fit with parents

Goodness of fit index. Goodness of fit was measured in several ways. First, the discrepancy between adolescent expectations (*preferred timetable*) and the adolescent's ratings of parental expectations (*actual timetable*) on the behavioral timetables were calculated. The score on each item from the preferred timetable scale was subtracted from the actual timetable scale. These difference scores were summed to produce a total fit index. The absolute values of the scores were used. A higher score (higher discrepancy) signified poorer fit.

The goodness of fit between adolescent and parental expectations were also assessed by asking four questions (adapted from Eccles et al., 1991) to measure the actual level of parental control and the adolescent's desired level of control. Sample questions

are, "How often do you take part in family decisions that concern you?" and "How often do you think you *ought* to take part in family decisions that concern you?". Respondents indicated the frequency on a scale ranging from 1 = never to 4 = always. Discrepancy scores were calculated by subtracting the score from the item that indicated the actual level of parental control from the item that indicated the desired level of control. For example, if an adolescent answered that he or she never (1) takes part in family decisions, yet he or she thinks they *ought* to take part in family decisions sometimes (3), the discrepancy score equaled 2. The absolute values of the scores were used. A higher score represented a poorer fit.

Acculturation

Acculturation Scale (adapted from Nguyen, 1995). This scale measured adolescents' level of acculturation in two ways - by their endorsement of Asian and U.S. attitudes and values, and by the frequency of engaging in Asian and U.S. behaviors. The degree to which the adolescent endorsed values such as, "It is important for me to preserve my Asian heritage" and "As far as behaviors and values, I am 'American'" were assessed on a 5-point scale ranging from "strongly agree" to "strongly disagree." By using these types of statements, the adolescent's involvement in Asian culture (IAS) and involvement in U.S. culture (IUS) could be assessed separately. By combining scores on these two subscales, four different acculturation styles were identified (based on Berry's (1980) model).

For example, an adolescent who scored high on the IAS and low on the IUS was identified as adopting a traditional acculturation style. An adolescent who scored low on

the IAS and high on the IUS was identified as adopting an assimilated acculturation style. High scores on both the IAS and IUS indicated an integrated (bicultural) adolescent, while low scores on both the IAS and IUS indicated a marginalized adolescent. Cronbach's alphas for IAS and IUS were found to be .86 and .82, respectively.

This acculturation scale also measured late adolescents' involvement in Asian and U.S. behaviors. For example, The frequency of certain behaviors such as "How often do you eat Asian food?" were indicated on a 5-point scale ranging from "never" to "always". Cronbach's alpha for involvement in Asian behaviors and U.S. behaviors were .86 and .80, respectively.

Adolescent adjustment

The Psychosocial Maturity Inventory (Greenberger, Josselson, Knerr, & Knerr, 1974). This measure was created to assess how well the adolescent functions socially. One subscale consisting of 10 items was used - work orientation (sample item: "I believe in working only as hard as I have to"). Respondents rated how strongly they agreed or disagreed on a 4-point scale. A higher score represented a more mature response. Cronbach's alpha for this sample was .70.

The Misconduct Scale (adapted from Feldman & Rosenthal, 1991). This is an 8-item scale that measured the frequency (0 = never to 3 = often) of misconduct behaviors that the adolescent has engaged in. A sample item is, "Have you ever cheated on a test?" Cronbach's alpha was .76 in this study.

Center for Epidemiological Studies - Depression (CES-D) (Radloff, 1977). This is a 20-item scale that measured psychological depression. Respondents were asked to indicate

how often (ranging from "rarely" to "most of the time") they felt or behaved during the past week. Sample items are, "I was bothered by things that usually don't bother me", and "I enjoyed life". Cronbach's alpha in this study was .90.

Familial Insecurity Scale (FIS) (Ainsworth & Ainsworth, 1958). Adolescents were asked to rate 12 items such as "I feel discouraged that it is so difficult to live up to my parents' expectations," on a 4-point scale ranging from "very false" to "very true". Cronbach's alpha was found to be .81.

Self-Perception Profile for College Students (Neemann & Harter, 1986). This instrument measured the students' perceptions of their level of competence in various domains. Of the original 13 subscales, 5 were used: 1) academic competence, 2) social ability 3) close friendships, 4) intellectual ability, and 5) global self-worth. The first 4 subscales each have 4 items to assess the student's perceived competence in that particular area. Global self-worth is assessed with 6 items. For example, to measure the student's perceived competence in the academic arena, he or she responded to items such as, "Some students feel confident that they are mastering their coursework, but other students do not feel so confident." The student must first decide which statement is most like themselves, and then decide whether the statement is sort of true or false or really true or false for them. The student's score for each subscale was calculated as a mean of the items from that subscale. Cronbach's alpha for the subscales used in this study are as follows: academic competence = .77, social ability = .82, close friendships = .84, intellectual ability = .76, and global self-worth = .85.

Grade Point Average (GPA). Respondents were asked to report their grade point average

on a scale from 0.0 - 4.0.

Pilot Study

A pilot study was conducted with 10 Asian-American college students to verify whether directions for filling out the questionnaires were clear and understandable, and to determine the length of time needed to complete the questionnaires. These responses were included in the final sample.

Missing Data

There were a small amount (3%) of missing data. Missing data were estimated using multiple regression. Several predictor variables that significantly correlated with the variable with missing data were identified. Then, scores for each missing case were predicted using these predictor variables. These predicted scores replaced the missing information.

Chapter 5

RESULTS

Discrimination analyses revealed that there were no significant sex differences found in the study variables. Therefore, for all analyses males' and females' data were combined. The means, standard deviations, and ranges of the study variables are presented in Table 1.

A General Overview

In order to attain a general overview of the relationships between acculturation, level of fit in the family, autonomy, and adjustment, LISREL (LInear Structural RELationships; Jöreskog & Sörbom, 1993) analyses were conducted. The covariance matrix of the 20 study variables was analyzed (see Appendix B for the covariance matrix). The generalized least squares (GLS) procedure was used to estimate model parameters. The GLS procedure was chosen because of the study's small sample size.

The full model

When the model was initially run, several of the goodness of fit indices indicated that the data did not fit the model well[4]. An examination of the modification indices

[4]Goodness of Fit Index = .71, Normed Fit Index = .61, Comparative Fit Index = .71

Table 1. Description of Study Variables

	M	SD	Range
Adjustment			
Depression	1.85	.54	1.05 - 3.30
Emotional connectedness to parents	2.93	.53	1.64 - 3.82
Self-esteem: Academic	2.51	.66	1.00 - 4.00
Close friends	3.06	.80	1.00 - 4.00
Intelligence	2.74	.63	1.25 - 4.00
Social ability	2.99	.75	1.25 - 4.00
Global	2.87	.61	1.00 - 4.00
GPA	2.92	.47	1.80 - 3.90
Behavior misconduct	.78	.42	0.00 - 2.13
Insecurity with parents	2.56	.54	1.17 - 3.92
Work attitude	2.81	.39	2.10 - 3.80
Indicators of Fit			
Autonomy Timetable Fit	.52	.37	0.00 - 1.79
How Decisions are Made in the Family	.62	.75	0.00 - 3.00
How Often are Decisions Made while including the adolescent	.82	.87	0.00 - 4.00
Autonomy			
Autonomy Timetable:			
Allowed	2.85	.57	1.53 - 4.11
Would Have Liked	2.36	.46	1.32 - 3.84
Emotional Autonomy from parents	2.80	.32	2.00 - 3.60
Emotional Connectedness to parents	2.93	.53	1.64 - 3.82
Acculturation			
Endorsement of Values:			
Asian	3.51	.44	2.23 - 4.41
Western	3.92	.40	2.91 - 4.71
Engaging in Behaviors:			
Asian	3.09	.69	1.60 - 4.60
Western	4.08	.56	2.38 - 5.00

indicated that the model could be improved if the latent variable, fit in family, was allowed to correlate with the observed variable of autonomy timetable. This made sense since this observed variable had been used to calculate the fit in family scores. Furthermore, by allowing a number of error terms to be correlated between the observed variables (38 of the possible 196 (19.4%) correlations between error terms were set free) the model could be improved further (see Appendix C for a listing of the correlated error terms). The modified model demonstrated good fit with the data. See Table 2 for a listing of the goodness of fit indices.

The t-values for the parameters of the measurement model were all significant (see Figure 2; see Appendix D for parameter estimates). Thus, the observed variables seemed to adequately measure the latent constructs.

The t-values for the parameters of the structural model were also all significant (see Figure 2 for t-values; see Appendix D for parameter estimates). Thus, the hypothesis that autonomy, acculturation, and level of fit in the family predicted the late adolescent's well-being (e.g., depression, self-esteem, behavior misconduct, etc.) was confirmed.

A comparison of the full model with submodels 1 and 2

To assess whether the full model (autonomy and fit in two contexts - family and culture) was better at predicting adjustment than a submodel with autonomy and only one fit context predicting adjustment, two nested models were tested. One nested model tested whether autonomy and fit in the family adequately predicted adjustment and the other model tested whether autonomy and acculturation predicted adjustment.

Table 2. LISREL Goodness of Fit Indices

	Full Autonomy Model	Submodel 1	Submodel 2
Chi-square	91.76, df = 126 (p = .991)	59.30, df = 74 (p = .893)	119.22, df = 101 (p = .104)
Goodness of Fit Index (GFI)	.91	.92	.86
Normed Fit Index (NFI)	.99	.99	.98
Comparative Fit Index (CFI)	1.00	1.00	1.00
Critical N (CN)	178.13	174.86	113.60
Standardized Root Mean Square Residual (Standardized RMSR)	.15	.12	.45

Note: The Independence Akaike Information Criterion (AIC) and Model AIC are not reported because GLS estimation was used.

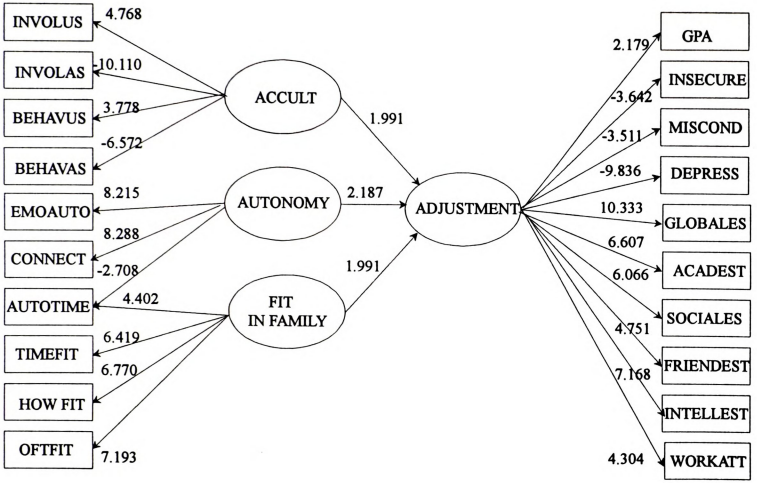

Figure 2. t-values for Parameters of the Full Autonomy Model

The covariance matrix of the observed variables was analyzed using the generalized least squares procedure for the two nested models (see Appendices E and F for the covariance matrices of submodel 1 and submodel 2).

The autonomy and fit in the family model (submodel 1) did not significantly differ from the full model, based on the results from a χ^2 difference test ($\chi^2 = 32.45$, df = 52). The goodness of fit indices were comparable to the full model (see Table 2), indicating that this more parsimonious model seemed to fit the data just as well as the full model. However, both the measurement and structural models were not as strong. Two observed variables did not load significantly on their latent constructs (autonomy timetable with the autonomy construct, and GPA with the adjustment construct). Furthermore, the latent variables of autonomy and fit in the context of the family, did not significantly predict adjustment (see Figure 3 for parameter t-values of submodel 1; see Appendix G for parameter estimates).

The other nested model tested whether autonomy and acculturation predicted adjustment. The χ^2 difference test between the full model and submodel 2 was not significant ($\chi^2 = 27.46$, df = 25), indicating that this more parsimonious model seemed to explain the data just as well as the full model. However, an inspection of the goodness of fit indices (see Table 2) and t-values of the parameter estimates revealed that model 2 was not as strong structurally. As with submodel 1, including autonomy along with only one fit context (this time culture instead of family) did not significantly predict adjustment (see Figure 4 for parameter t-values of submodel 2; see Appendix H for parameter estimates).

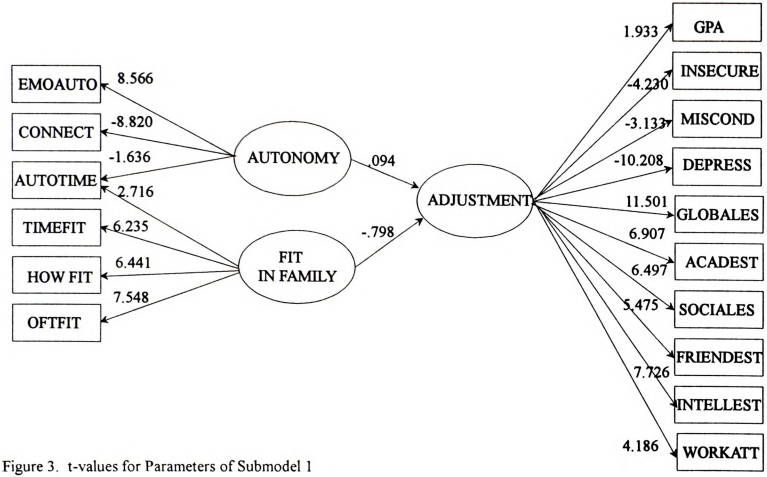

Figure 3. t-values for Parameters of Submodel 1

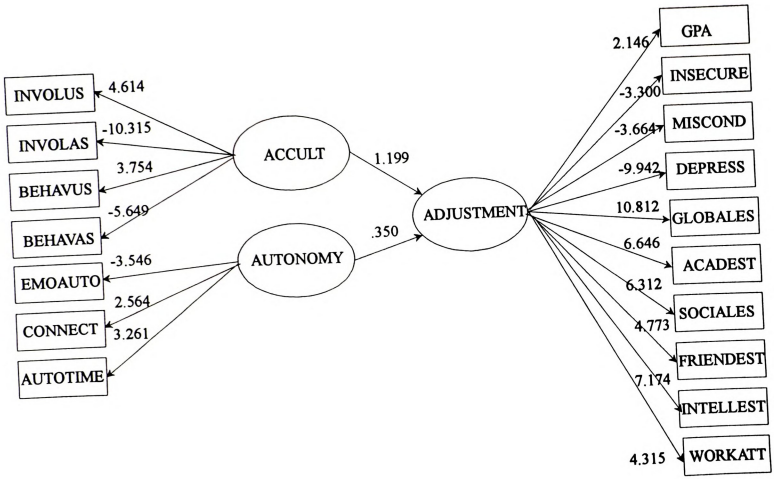

Figure 4. t-values for Parameters of Submodel 2

Therefore, the full autonomy model that includes autonomy along with two fit contexts seems to better predict adjustment.

An alternate model

To test whether an alternate model would adequately explain the data, LISREL analyses were run on the model depicted in Figure 5. In this model it is hypothesized that acculturation is linked to both fit in the family and the level of autonomy the adolescent experiences, and that these two latent constructs are, in turn, linked to adolescent adjustment. This model did not fit the data well, as demonstrated by the chi-square significance test and the goodness of fit indices[5]. Although this model makes sense theoretically, it may be that the sample size is too small to adequately estimate the extra parameters.

Acculturation and Autonomy

To uncover more specifically the relationships within the full autonomy model, parts of this model were tested. To test the hypothesis that the four acculturation styles (e.g., bicultural, traditional, assimilated, marginalized) were related to behavioral and emotional autonomy that the adolescents experienced with their parents, prediction analyses (PA) were conducted. "Prediction analysis compares observed frequencies with a hypothesized or predicted pattern of outcome" (von Eye & Brandstädter, 1988). Results reveal that acculturation style did not significantly predict the level of autonomy the adolescent experienced, behavioral or emotional. Therefore, further analyses involved the

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[5] $\chi^2 = 428.26$, $p = 0.0$, GFI = .72, CFI = .71, NFI = .61, CN = 48.6, Standardized RMSR = .16

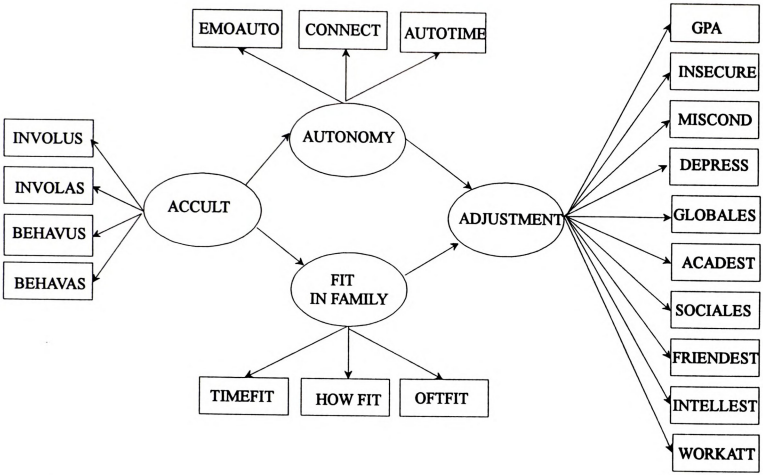

Figure 5. An Alternate Model

use of two dimensions of Asian and Western involvement rather than a combination of these two dimensions to form four acculturation style groups. Nguyen (1995) found the two dimensions to provide more information on Vietnamese adolescent adjustment more so than classifying adolescents into four acculturation styles.

Prediction analysis was used to examine whether one could predict the adolescent's level of autonomy from an assessment of their commitment to Asian or Western attitudes and their involvement in Asian or Western behaviors. It was hypothesized that more Asian adolescents would be less behaviorally and emotionally autonomous, and that more Western adolescents would be more autonomous. Results of the PA show the two acculturation dimensions to successfully predict emotional but not behavioral autonomy.

There was strong descriptive (Del[6] = .21) and statistical support ($z = 2.99$, $p < .01$; Pearson $\chi^2 = 12.04$, $p < .05$) indicating that those who were more Asian in their attitudes and values were less emotionally autonomous compared to those who were less Asian. There was also some support indicating that those who were more involved in Western behaviors were more emotionally autonomous than those less involved (Del = .09; Pearson $\chi^2 = 15.47$, $p < .01$; $z = 1.27$, $p = .10$).

Correlational analyses also partially confirm the first hypothesis. Those who endorsed more Asian attitudes were less emotionally autonomous ($r = -.29$, $p < .01$),

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[6]"Del" is a statistic that indicates the reduction in the percentage of the number of errors made by utilizing the predictor variable (Szabat, 1990). For example, Del = .21 indicates that the number of errors made in predicting emotional autonomy was reduced by 21% when the variable of Asian values was applied.

experienced a later timetable of autonomy, (r = .25, p < .05), and *desired* a later timetable of autonomy (r = .40, p < .001) than those who endorsed less Asian attitudes. In comparison, those who endorsed more Western attitudes preferred an earlier autonomy timetable (r = -.25, p < .05) than those who endorsed less. Engaging in more Asian or Western *behaviors*, was not significantly related to level of emotional or behavioral autonomy of the adolescent. It is interesting to note that Asian and Western attitudes were related to adolescent autonomy, but did not significantly relate to how connected the adolescent felt to their parents.

Emotional Autonomy, Connectedness, and Fit in Parental Expectations

Next, the relationship between the amount of autonomy the adolescent experienced and how well the adolescent fit with parental expectations were examined. Correlational analyses revealed that emotional autonomy and connectedness were significantly related to the three measures of fit. More emotionally autonomous individuals experienced poorer fit, and more connected individuals experienced better fit with their families. See Table 3.

Table 3. Correlations for Indicators of Fit Measures with Emotional Autonomy and Connectedness

	Emotional Autonomy	Emotional Connectedness
Fit in autonomy timetable expectations	.47	-.48
How decisions are made in the family	.43	-.48
How often decisions are made that include the adolescent	.37	-.59

Note: all correlations significant at $p < .0001$

Autonomy, Connectedness, and Adjustment

Emotional autonomy and connectedness also significantly correlated with several adjustment variables. More specifically, individuals who reported being more emotionally autonomous from their parents also reported higher levels of behavior misconduct (r = .23, $p < .05$), and insecurity with parents ($r = .43$, $p < .001$). In contrast, those who reported being more emotionally connected to their parents reported higher levels of self-esteem in having close friends ($r = .24$, $p < .05$) and social ability ($r = .21$, $p < .05$), and less insecurity with their parents ($r = -.50$, $p < .001$). That more emotional autonomy is related to negative adjustment while more connectedness is related to positive adjustment is not surprising, as emotional autonomy and connectedness are inversely related to one another ($r = -.68$, $p < .0001$).

Nevertheless, previous studies have provided evidence that there is a more complex relationship between emotional autonomy and connectedness and their relationship to individual adjustment. It is not necessarily the case that emotional autonomy leads to poorer functioning. In the context of a supportive relationship with parents, some very autonomous adolescents can experience good outcomes (e.g., having good relationships with their parents, having a high sense of competence). Therefore, a MANOVA with Lamborn and Steinberg's (1993) classifications of autonomy and connected individuals (e.g., individuated, detached, connected, and ambivalent; see page 7 in the literature review for review of these categories) was used to test further how different combinations of autonomy and connectedness would affect adolescent well-

being. Preliminary analyses of normality, linearity, and homogeneity of variance/covariance matrices assumptions were met. Table 4 displays the results of the MANOVA. Two of the 10 adjustment variables were significantly related to the four groups. Post-hoc analyses with the Bonferonni adjustment were then conducted to identify specifically which groups differed on the adjustment variables. Results of two one-way ANOVAs (see Table 5) revealed that ambivalent and detached adolescents were more insecure in their relationships with their parents compared to connected adolescents. Finally, connected adolescents reported more appropriate work attitudes than ambivalent adolescents. See Table 6 for the means and standard deviations for the four groups and their scores on the adjustment variables.

In addition to the MANOVA and ANOVA runs, hierarchial multiple regression was performed to examine the independent and interactive effects of emotional autonomy and connectedness on the adjustment variables. Evaluations of assumptions of normality, linearity, and homoscedasticity of residuals were satisfactory. Several outliers were found for a few of the adjustment variables. When the surveys with outliers were checked, there were no signs of unusual responding (e.g., simply checking all 1's). Also, scatterplots revealed that the outliers followed the same trend as the majority of the other scores, they were just a bit more extreme in their values. Thus, the outliers were left in the analyses.

In these analyses, emotional autonomy and connectedness were entered in the first step, and the interaction term (the product of the two main effects) was entered next.

Table 4. MANOVA Results for Autonomy/Connectedness Groups with Adjustment

F-tests with (3, 95) df

		Autonomy and Connectedness Groups F
Depression		1.02
Self-esteem:	Academic	.59
	Close friends	1.93
	Intelligence	.28
	Social ability	.66
	Global	.40
GPA		.43
Behavior misconduct		1.03
Insecurity with parents		14.00**
Work attitude		2.70*

* $p = .05$
** $p < .0001$

Table 5. ANOVA Results for Autonomy/Connected Groups and Adjustment

Insecurity with Parents

Source	df	SS	MS	F
Between Groups	3	8.90	2.97	14.00**
Within Groups	95	20.14	.21	
Total	98	29.04		

Work Attitude

Source	df	SS	MS	F
Between Groups	3	1.14	.38	2.70*
Within Groups	95	13.37	.14	
Total	98	14.51		

* $p < .05$
** $p < .0001$

Table 6. Means and Standard Deviations for Autonomy/Connected Groups and Adjustment

		Insecurity With Parents	Work Attitude
Ambivalent	M	2.64	2.63
	SD	.54	.38
Connected	M	2.17	2.93
	SD	.48	.42
Detached	M	2.87	2.78
	SD	.41	.36
Individuated	M	2.56	2.83
	SD	.42	.25

After adjusting the significance level (using Bonferroni's adjustment) to deal with the increase in Type I error by running separate regressions on 11 dependent variables, results reveal that only one adolescent functioning variable, namely, insecurity with parents was significantly predicted from emotional autonomy, connectedness and their interaction. Table 7 displays the correlations, B, $\hat{\beta}$, R, R^2, and Adjusted R^2 for these analyses with insecurity with parents as the dependent variable.

To test for the specific location of the interaction, three contrast vectors were used (Rovine & von Eye, 1996). First, emotional autonomy and connectedness were each split into three levels - low, medium, and high. Then, three different parts of the 3 x 3 table of these two variables were analyzed: 1) the main diagonal, where those high in both autonomy and connectedness were contrasted to those medium in both autonomy and connectedness and low in both autonomy and connectedness, 2) the area below the diagonal where those who were high in autonomy and medium in connectedness were contrasted to those who were low in connectedness and either medium or high in autonomy, and 3) the area above the diagonal where those who were low on autonomy and high on connectedness were contrasted to those low in autonomy and medium in connectedness and those who were medium in autonomy and high in connectedness (see Figure 6).

Emotional autonomy and connectedness were entered on the first step, and the three vectors on the second. See Table 8 for a summary of the results. Since the two main effects did not significantly contribute to predicting insecurity with parents, yet two of the interactions did, a more parsimonious model with no main effects was also tested to

Table 7. Hierarchical Regression of Emotional Autonomy, Connectedness, and Their Interaction on Insecurity with Parents.

Variables	Insecurity With Parents	Emotional Autonomy	Emotional Connectedness	B	$\hat{\beta}$
Emotional Autonomy	.46			-2.22	-1.30*
Emotional Connectedness	-.55	-.68		-2.95	-2.85**
Interaction	-.31	-.10	.79	.85	1.80**
				Intercept	10.55
					R = .63**
					R^2 = .40
					Adjusted R^2 = .38

* $p < .01$
** $p < .001$

		Emotional Connectedness		
		Low	Medium	High
Emotional Autonomy	Low	1 1	1 2	1 3
	Medium	2 1	2 2	2 3
	High	3 1	3 2	3 3

Vector 1: 33 contrasted with 11 and 22
Vector 2: 32 contrasted with 21 and 31
Vector 3: 13 contrasted with 12 and 23

Figure 6. Contrasts for Testing Local Interactions for Insecurity with Parents Variable

Table 8. Hierarchical Regression of Emotional Autonomy, Connectedness and Local Interaction Vectors onto Insecurity with Parents.

	Insecurity with Parents		
	B	β	
Emotional Autonomy	.37	.22	
Emotional Connectedness	-.19	-.19	
Interactions: Vector 1	.39	.24*	
Vector 2	.20	.13	
Vector 3	.28	.25*	
			$R = .64^{**}$
			$R^2 = .41$
			Adjusted $R^2 = .38$

*p < .01
** p < .0001

examine whether the three interaction effects would adequately predict insecurity with parents.

The three interaction vectors were entered on one step (see Table 9). An F-test showed that the more parsimonious model was significantly different from the full model (F (2,93) = 7.09, $p < .01$). Therefore, the unconstrained model was accepted. This model suggested that those who were both high on emotional autonomy and connectedness reported less parental insecurity than those who were not as autonomous nor as connected to their parents. In addition, those who were low on autonomy and high on connectedness reported less insecurity with their parents compared to those low in autonomy and medium in connectedness and those who were medium in autonomy and high in connectedness. In other words, it seems as if adolescents who experience low or high levels of autonomy, and, at the same time, maintain high levels of connectedness, report a more secure parent-adolescent relationship. See Figure 7 for a graph of the interaction.

Fit in Parental Expectations and Adjustment

To address how 1) the adolescents' autonomy timetable and, 2) the fit between the adolescents' autonomy timetable expectations with their parents, relate to adolescent adjustment, a one-way between subjects MANOVA was performed. Eleven dependent variables (DVs) were first tested with the actual timetable of autonomy behaviors. Next, the DVs were tested with the fit between adolescent and parental expectations of the

Table 9. Multiple Regression of the Interaction Vectors of Emotional Autonomy and Connectedness onto Insecurity with Parents

		Insecurity with Parents		
		B	$\hat{\beta}$	
Interactions:	Vector 1	.42	.25*	
	Vector 2	.42	.28*	
	Vector 3	.44	.40**	
				R = .56**
				R^2 = .32
				Adjusted R^2 = .30

*p < .01
** p < .0001

autonomy timetable. Results of normality, linearity, and homogeneity of variance/covariance matrices were satisfactory for both runs. Outliers were found, but again, when the surveys were checked and the scatterplots examined, there was no reason to exclude them.

First, the relationship between the timetable of autonomy expectations to the 11 DVs were assessed. Adolescents were divided into two groups on the independent variable (IV) - those who experienced an earlier timetable (at or below the mean), and those who experienced a later timetable (above the mean). The combined DVs were significantly, moderately related to the timetable of autonomy (Wilks' criterion: $\underline{F}$ (1,96) = 4.13, $\underline{p} < .0001$; $\eta^2 = .34$). Results are summarized in Table 10. Three of the DVs made a significant contribution to the combined set of DVs that differentiated between adolescents who experienced an earlier or later timetable of autonomy.

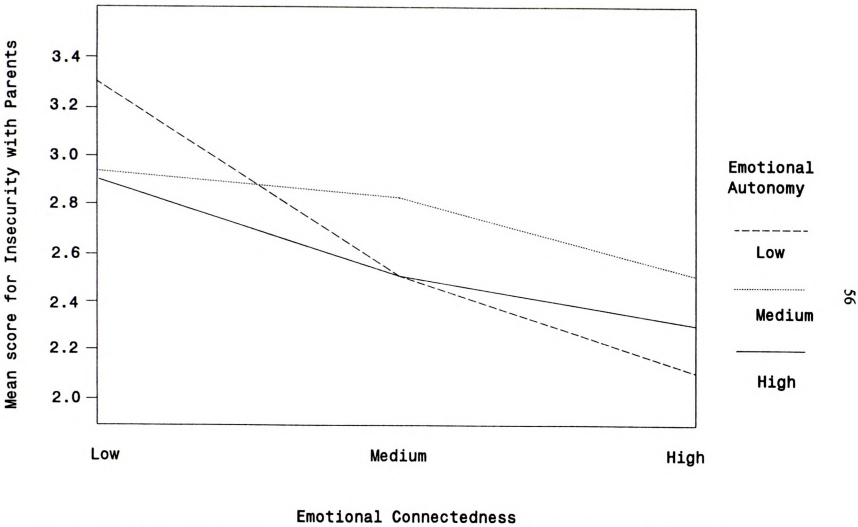

Figure 7. Graph of the Emotional Autonomy and Connectedness Interaction with Insecurity with Parents

Table 10. MANOVA Results for Autonomy Timetable and Fit in Autonomy Timetable with Adjustment

F-tests with (1, 96) df		Timetable of Autonomy Behaviors F	Fit in Timetable of Autonomy Behaviors F
Depression		.42	5.60*
Emotional connectedness with parents		3.27	11.12**
Self-esteem:	Academic	2.24	4.00*
	Close friends	5.73*	4.97*
	Intelligence	4.90*	3.09
	Social ability	.13	6.31*
	Global	.79	3.37
GPA		1.39	.00
Behavior misconduct		.99	8.33**
Insecurity with parents		26.95***	25.62***
Work attitude		1.00	4.59*

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

Next, to test the hypothesis that the fit in timetable expectations is a better predictor of adjustment than simply knowing the timetable, another MANOVA was run. Adolescents were divided into two groups for the IV- those who experienced good fit and those who experienced poor fit in timetable expectations with their parents.

Based on Wilks' criterion, it was found that the combined DVs were significantly and moderately related to fit group ($F(1,96) = 3.56$, $p < .01$; $\eta^2 = .31$). Eight of the dependent variables made a significant contribution to the combined set of DVs that best distinguished between adolescents who experienced poor fit versus good fit in their timetable of autonomy behavior expectations. Adolescents who fit well with parental expectations of autonomy reported closer relationships to their parents, more appropriate work attitudes, higher levels of self-esteem in three areas (e.g., academic, close friends, and social ability), and lower levels of depression, behavior misconduct, and insecurity with parents, than those who did not fit well (see Table 10). Table 11 summarizes the means and standard deviations of these adjustment variables for the two fit groups.

In addition to the fit in timetable expectations, two other goodness of fit indicators (by Eccles et al., 1991) were analyzed, 1) *how* decisions were made in the family that concerned adolescent compared to how the adolescent *would have liked* these decisions to be made, and 2) *how often* decisions were made that concerned the adolescent compared to how often the adolescent *would have liked* these decisions to be made. A higher score indicated there was a greater discrepancy between what the adolescent desired and what his/her parent allowed.

Adolescents were again divided into two groups for the IV - those who

Table 11. Means and Standard Deviations for Significant Adjustment Variables and Timetable Fit Groups

		Good Fit	Poor Fit
Depression	M	1.74	1.99
	SD	.53	.53
Emotional connectedness with parents	M	3.07	2.74
	SD	.40	.60
Self-esteem: Academic	M	2.62	2.36
	SD	.63	.66
Close friends	M	3.21	2.86
	SD	.69	.88
Social ability	M	3.15	2.78
	SD	.68	.79
Behavior misconduct	M	.67	.91
	SD	.39	.41
Insecurity with parents	M	2.34	2.84
	SD	.50	.48
Work attitude	M	2.88	2.71
	SD	.38	.37

experienced good fit and those who experienced poor fit. The MANOVA runs show similar findings to the fit in the timetable of autonomy analyses. These two fit indices were better predictors of adolescent adjustment than simply knowing how or how often decisions were made in the family that concerned the adolescent. See Tables 12 and 13 for a summary of the findings.

Fit was also related to the timetable of autonomy the adolescent experienced. Those who were allowed to engage in autonomous behaviors at an earlier age experienced better fit. See Table 14.

Originally, it was intended to examine whether there was a difference between those who wanted more autonomy than their parents allowed, those who wanted less (two types of poor fit), and those who were satisfied (good fit) with the amount of autonomy they were granted. Fit indices of 1) how decisions were made and 2) how often decisions were made that included the adolescent, were split into those three groups. However, a MANOVA run with the three fit groups predicting 11 adjustment variables, showed no significant results. One reason for this may be the small size of some of the groups. For example, there were very few adolescents who wanted *less* autonomy than their parents allowed. Therefore, the two poor fit groups were combined and compared against those with good fit.

Fit in Parental Expectations and Timetable of Autonomy

Means for "age allowed to engage in certain autonomous behaviors" between poor and good fit groups were compared using a one-way ANOVA. A significant mean age difference was found between the two fit groups (F (1,97) = 24.51, $p < .0001$).

Table 12. MANOVA Results for How Decisions are Made in the Family with Adjustment

F-tests with (1,96) df	How decisions are made in the family F	Fit in how decisions are made in the family F
Depression	4.40*	5.49*
Connectedness to parents	24.22***	19.00***
Self-esteem: Academic	1.04	2.94
Friendship	3.10	3.59
Intelligence	2.23	4.70*
Social	.33	1.51
Global	2.28	4.25*
GPA	.58	.06
Behavior misconduct	.19	1.10
Insecurity with parents	43.32***	22.89***
Work attitude	.17	.36
Wilks lambda	.58	.74
F-value	5.76***	2.79**
η^2	.42	.26

*p < .05
** p < .01
***p < .0001

Table 13. MANOVA Results for How Often Decisions are Made in the Family and Adjustment

F-tests with (1,96) df	How often decisions are made in the family F	Fit in how often decisions are made in the family F
Depression	1.09	3.10
Connectedness to parents	.00	28.62*
Self-esteem: Academic	.81	1.93
Friendship	.91	3.24
Intelligence	.34	1.54
Social	.58	.00
Global	.73	1.84
GPA	.14	.77
Behavior misconduct	.22	.06
Insecurity with parents	.33	27.54*
Work attitude	.63	.00
Wilks lambda	.97	.64
F-value	.25	4.48*
η^2	.03	.36

*$p < .0001$

Table 14. Correlations between Allowed Autonomy and Indicators of Fit

	Allowed Behavioral Autonomy
How are decisions made	.43
How often are decisions made	.37
Fit in Autonomy Timetable	.61

Note: All correlations significant at $p < .0001$

Adolescents who were allowed to engage in autonomous behaviors at an earlier age fit better into parental expectations compared to adolescents who were allowed behavioral autonomy at a later age. It seems as if adolescents wanted more autonomy at an earlier age than their parents allowed.

However, the mean differences were too small to translate this into more meaningful terms. For example, the mean age for when certain autonomous behaviors were allowed was 3.13 for the poor fit group and 2.62 for the good fit group. While this was significant, it was not possible to distinguish whether there was an actual age difference between the two groups. A 2 on the timetable scale indicated the adolescent was allowed to engage in this autonomous behavior when they were 14 - 15 years of age. A 3 indicated they were allowed to engage in the behavior when they were 16 - 17 years of age. The scale was not specific enough to determine the age allowed to engage in certain activities that would have distinguished adolescents in the poor or good fit group. Nevertheless, as reported earlier, there were moderate and significant effect sizes between fit and timetable of autonomy.

Interestingly, more emotional autonomy was related to poor fit, but earlier

behavioral autonomy was related to good fit.

Hierarchical multiple regression analysis was used to examine how emotional autonomy and connectedness related to fit. Evaluation of assumptions of normality, linearity, and homoscedasticity of residuals were satisfactory, and no outliers were found. The variables of emotional autonomy and connectedness to parents were entered simultaneously. Table 15 displays results that show that fit was significantly predicted by both emotional autonomy and connectedness, again confirming previous analyses that more emotional autonomy was related to poorer fit, and conversely, more connectedness was related to better fit.

Acculturation and Adjustment

To test whether acculturation level related to adolescent adjustment, MANOVA was used. The four acculturation styles were not found to be significantly related to any of the adjustment variables. Subsequently, analyses focusing on the two dimensions of acculturation, namely, how strongly the adolescent endorsed Asian and Western values and behaviors were performed.

Correlational analyses, reported in Table 16, indicate that several adjustment variables are related to the level of involvement in Asian and Western cultures. Interestingly, level of depression and global self-esteem are negatively related to involvement in Asian culture, yet positively related to involvement in Western culture. In other words, late adolescents who reported being more Asian experienced a higher level of depression and lower self-esteem compared to those who reported being less Asian. In contrast, the more Western adolescent experiences a lower level of depression and higher

Table 15. Multiple Regression of Emotional Autonomy and Connectedness Predicting Level of Fit

Variables	Emotional Autonomy	Emotional Connectedness	B	$\hat{\beta}$
Emotional Autonomy			.31	.27*
Emotional Connectedness	-.68**		-.20	-.29*
Level of Fit	.47**	-.48**		
			Intercept	.23
			$R = .52^{**}$	
			$R^2 = .27$	
			Adjusted $R^2 = .25$	

*p < .05
** p < .0001

Table 16. Correlations between Acculturation and Adjustment

		Endorsement of values		Engaging in behaviors	
		Asian	Western	Asian	Western
Depression		.27**	-.24*	.28**	-.32**
Emotional connectedness to parents		.18	-.02	-.11	.14
Self-esteem:	Academic	-.18	.08	-.17	.15
	Close friends	-.15	.13	-.11	.25*
	Intelligence	-.09	-.02	-.15	.11
	Social ability	-.15	.14	-.17	.23*
	Global	-.15	.15	-.19	.25*
GPA		-.05	.03	-.08	.02
Behavior misconduct		.03	.01	.07	.07
Insecurity with parents		.04	-.07	.07	-.14
Work attitude		.01	.18	.00	.30**

* $p < .05$
** $p < .01$

self-esteem than those who are not as Western. Endorsement of Asian attitudes was inversely correlated with endorsement of Western attitudes ($r = -.53$, $p < .001$). Also, engaging in Asian behaviors was also inversely correlated with engaging in Western behaviors ($r = -.46$, $p < .0001$).

Additional Findings

Correlational analyses indicated that there is a relationship between how recently the adolescent's parent moved to the U.S. and how strongly the adolescent endorsed Asian values and attitudes. The longer the father or mother lived in the U.S., the less strongly the adolescent endorsed Asian values and attitudes ($r = -.24$, $p < .05$, $r = -.21$, $p < .05$, respectively). The length of time the adolescent's parents lived in the U.S. did not significantly relate to how strongly the adolescent endorsed Western values.

Generational status also affected how strongly the adolescent endorsed Asian values and Asian behaviors. A one-way ANOVA was conducted to compare adolescents who were born in the U.S. to adolescents who immigrated here with their parents. It is somewhat surprising that adolescents born in the U.S. more strongly endorsed Asian values and attitudes compared to adolescents who have immigrated to the U.S. ($F(1,97) = 5.38$, $p < .05$). Furthermore, U.S. born Asian adolescents also were more engaged in Asian behaviors compared to foreign-born adolescents ($F(1,97) = 3.97$, $p < .05$). Generational status did not significantly affect the adolescent's involvement in Western attitudes and behaviors.

Emotional autonomy was significantly correlated with how long the adolescent's mother had lived in the U.S. Adolescents who reported more emotional autonomy had

mothers who had lived in the U.S. longer ($r = .22$, $p < .05$). The correlation between adolescents' emotional autonomy from parents and the length of time their father lived in the U.S. approached significance ($r = .20$, $p = .059$). The length of time the adolescent's parents lived in the U.S. did not significantly relate to how much autonomy was allowed to the adolescent (the timetable).

Adolescent fit into parental timetable autonomy expectations was related to the length of time the adolescents' parents have lived in the U.S. It was found that adolescents better fit into parental expectations regarding autonomy (the fit index used - "how often does your family include you when making decisions that concern you") the longer their parents have lived in the U.S. (for fathers, $r = -.28$, $p < .01$; for mothers, $r = -.24$, $p < .05$).

Chapter 6

DISCUSSION

The goal of this study was to investigate autonomy and connectedness in Asian-American late adolescents. Given the significance and impact of context to development, autonomy was examined in relation to family and cultural demands. Additionally, this study examined the relationship between late adolescent adjustment and the level of fit they experienced in these two contexts.

Acculturation and the Timetable of Autonomy

Feldman and Rosenthal (1990; 1991) found that individuals from Asian cultures (e.g., adolescents living in Hong Kong and Chinese adolescents living in the U.S. or Australia) traditionally do not promote or engage in autonomous behaviors as early as individuals from Western cultures. In the present study, late adolescents who were more Asian in their values and attitudes experienced less emotional autonomy, a later behavioral autonomy timetable and, furthermore, *preferred* a later timetable than those less Asian. These findings support the notion that the adolescent's cultural values and attitudes play a role in determining the timing and degree of autonomy.

Autonomy, Connectedness and Adjustment

Another question explored was how emotional and behavioral autonomy related to aspects of adolescent functioning. In this study, late adolescents who were more connected to their parents reported higher levels of self esteem and lower levels of insecurity with parents. The finding that connectedness with parents is associated with

positive adjustment is not surprising, given past research on the significance of family support (Steinberg, 1990).

An inverse relationship was found between emotional autonomy and connectedness to parents. That is, more emotionally autonomous adolescents experienced less connectedness with their parents. Conceivably, the more autonomous adolescents become, the more their Westernized values and behaviors conflict with their parents' values which may be more Asian[7]. It could be likely, then, that the adolescent perceives less parental support, and, perhaps more intergenerational conflict. Conversely, it is also plausible that the lack of connection at home could drive adolescents into the larger society more quickly, hence, leading them to become more autonomous.

More emotional autonomy has been linked to both positive and negative outcomes, for example, healthier identity development (Frank et al., 1990), greater substance abuse (Turner, Irwin & Millstein, 1991), and a combination of healthier identity development and psychological health along with more substance abuse (Frank & Burke, 1992). Fuhrman and Holmbeck (1995) argue that emotional autonomy may be adaptive for adolescents who do not have a supportive family environment, yet, detrimental for adolescents who do have a supportive family environment. Research has also documented negative outcomes associated with too much or premature autonomy given to the adolescent (Stessa & Steinberg, 1991). Taken together, these studies paint a complex picture of the meaning and significance of autonomy.

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[7]Of course, an assessment of parental acculturation is needed to confirm the speculations that within immigrant families, parents are more traditional than their children.

In this study, emotional autonomy was associated with negative outcomes while behavioral autonomy was associated with both negative and positive outcomes. More emotional autonomy directly related to behavior misconduct, insecurity with parents and poorer fit with parental expectations of autonomy. Earlier behavioral autonomy, on the other hand, directly related to *less* insecurity with parents and *better* fit in parental expectations of autonomy. Conceivably, granting behavioral autonomy at an earlier age creates a sense of responsibility and a sense of being trusted in the adolescent. In contrast, high levels of emotional autonomy may indicate an unhealthy emotional distancing from parents, as Ryan and Lynch (1989) would argue.

In this study, earlier behavioral autonomy was associated with lower levels of self-esteem regarding intellectual ability and the ability to make close friends. It may be that earlier behavioral autonomy is beneficial for the parent-adolescent relationship. However, it may also leave room for adolescents to feel uncertain about their own abilities.

In sum, adolescents who are more emotionally autonomous from their parents do not fare well. In contrast, adolescents who are more behaviorally autonomous experience a good relationship with their parents. These findings demonstrate the importance of examining multiple aspects of autonomy and their relation to different developmental outcomes.

The context within which these autonomy levels are played out must be taken into account. For instance, adolescents who experience a greater degree of emotional autonomy from their parents may have parents who either trust and encourage them to become competent individuals, or, who simply do not care, e.g., a characteristic of

Baumrind's (1971) permissive parent. When the interaction between emotional autonomy and connectedness was examined, a more complex relationship to the insecurity adolescents experience with their parents, was found. The main effects of autonomy and connectedness were reduced to nonsignificance when specific interactions were considered. Findings indicate that either high or low autonomy in the context of a supportive relationship relates to lower insecurity with parents. This suggests that the family environment may act as a moderator between the level of emotional autonomy adolescents experience and their subsequent functioning.

To test further the interaction between emotional autonomy and connectedness, Lamborn and Steinberg's (1993) autonomy and connectedness classifications, e.g., individuated, connected, detached, ambivalent were used. These classifications were somewhat successful in identifying differences in predicting two outcomes - insecurity in the parent-adolescent relationship and work attitude, an aspect of psychosocial maturity. Connected adolescents were less insecure in their relationships with their parents compared to ambivalent and detached adolescents. Furthermore, connected adolescents reported more appropriate work attitudes than ambivalent adolescents.

These results did not replicate Lamborn and Steinberg's finding (1993) that individuated adolescents were the most psychologically and academically competent. One explanation could be the differences in the age of the two samples. Lamborn and Steinberg's sample consisted of high school adolescents. Perhaps at this stage it is more important for adolescents to be somewhat emotionally autonomous from their parents so that they can be free to develop their abilities and competencies. In contrast, the late

adolescents of this study attend college and have many more opportunities to be independent than when they were in high school. Hence, maintaining roots to their family (being connected) to balance this greater autonomy may be more adaptive at this time.

Fit in Autonomy Expectations and Adjustment

Another research question explored how well late adolescents fit into their parents' autonomy expectations. Depending on the developmental stage of the adolescent, optimal levels of autonomy from and connectedness to parents will change. Parents then have the responsibility to respond sensitively to the changing needs of the adolescent by allowing more freedom at certain times and offering more support at others (Eccles et al., 1991). Thus, instead of generalizing about the optimal level of autonomy parents should grant their adolescent, the fit between how much autonomy the adolescent desires and how much their parents are willing to allow should be considered.

This study supported the use of the goodness of fit model as a means to understand adolescent functioning. Three indicators of fit in the family were used. The first indicator, fit in autonomy timetable expectations, successfully predicted depression, several areas of self-esteem, the quality of the parent-adolescent relationship, behavior misconduct, and work attitude. Hypotheses based on the goodness of fit model were confirmed. Namely, poor fit was associated with negative outcomes whereas good fit was associated with positive outcomes. The knowledge of fit in autonomy timetables provided more information regarding adolescent adjustment compared to a simple examination of the adolescent's actual timetable. That is, taking into account both parental expectations and adolescent's *desired* expectations proved to be more useful in understanding

adolescent functioning.

The structural equation analyses suggest a causal relationship between good fit and positive adjustment. However, it is also plausible that the security and closeness that adolescents enjoy with their parents contributes to the adolescent's good fit with parental autonomy expectations. Or, adolescents who have an insecure and distant relationship with their parents may demand more freedom to engage in activities outside the family. This desire for more autonomy may not match what their parents find appropriate.

The second indicator of fit - how are decisions made in the family that concern the adolescent - also predicted adolescent adjustment. This was a better predictor compared to the third indicator of fit - how often are decisions made in the family that include the adolescent. This is not surprising when considered in the goodness of fit framework. Some adolescents do not care if they are not included in the family decision-making process, even if the decision concerns them. Instead, they are content allowing their parents to take control. Consequently, it would not matter to the adolescent how often he or she was included in the decision-making. The findings suggest that the process of decision making (e.g. *how* decisions are made) is more important to adolescents than the number of instances that they are included.

In sum, each of the three different indicators of fit (behavioral timetable expectations, how are decisions concerning the adolescent made in the family, and, how often are they included in decisions that affect them) were useful predictors of late adolescent adjustment, yet some to a greater extent than others. Each adolescent differs cognitively, socially, and biologically, and each may demand different timetables and

degrees of autonomy that are developmentally appropriate and optimal. Each adolescent also has unique parents with unique expectations that result in differences in expectation fit for each adolescent-parent dyad. Researchers who adopt the goodness of fit model take these individual differences into account.

The results demonstrate that not all Asian-American late adolescents experience poor fit with parental expectations. In other words, even though cultural variations exist within immigrant families, the values and beliefs that family members hold may still be consistent across generations.

Acculturation and Adjustment

Since issues of autonomy are embedded in the attitudes, values and behaviors characteristic of each culture, the four acculturation styles (Berry, 1980) in relation to adolescent adjustment were investigated. Research has reported the integrated acculturation style to be the most adaptive (LaFromboise et al., 1993; Szapocznik & Kurtines, 1980). However, in this study, none of the four styles significantly related to any late adolescent adjustment variables. Perhaps these classifications were too complex to uncover the relationship between acculturation and outcomes, as they assume an interaction between involvement in Asian attitudes and involvement in Western attitudes. In this study, as in Nguyen's study (1995) cited earlier, a two dimensional model of acculturation that assesses involvement in each culture separately, was a better predictor of adolescent adjustment than the four acculturation styles. Therefore, instead of using the four classifications of acculturation, individuals were examined according to how involved they were in Western culture and Asian culture, separately.

Several researchers contend that it is adaptive for adolescents to adopt some of the majority culture's values and attitudes. For example, a study conducted with a sample of Chinese-Americans living in a Midwestern town found that more assimilated Chinese-Americans reported less psychological distress symptomatology and lower levels of life stress than those who were less assimilated (Yu, 1984; Yu & Harburg, 1980). Nguyen's (1995) study of middle-adolescent Vietnamese high school students reported that adolescents who were more involved in Western culture reported lower levels of depression and higher levels of self-esteem. In contrast, adolescents who were more involved in Asian culture reported higher levels of depression and lower levels of self-esteem. The results of the present investigation coincide with these findings. That is, late adolescents who were more Western and less Asian experienced healthier outcomes.

In this particular university environment, a small minority (4%) of undergraduates are Asian-American (this does not include international students who come from Asia to study). Despite these small numbers, Asian-American undergraduates have access to a variety of supportive services specifically geared toward Asians. For example, there are Asian minority aides in each dorm, an Asian representative at the Office of Minority Student Affairs, and an Asian Pacific American Student Organization that sponsors cultural events, dances, and conferences for Asian undergraduates.

Nevertheless, in spite of these supportive services, it may still be somewhat difficult for students to find opportunities that reinforce Asian values and attitudes, or participate in activities such as watching Asian films, or speaking an Asian language, as there are so few Asians in the University and surrounding area. It is plausible that the

majority of people that Asian-American adolescents interact with on a daily basis (e.g., friends, peers, professors, store owners), are likely to be individuals endorsing Western values. Embracing similar values may be advantageous in some respects. Indeed, more Western late adolescents reported higher levels of self-esteem in the area of social relations. These late adolescents reported more confidence in their ability to interact with other people and to make friends. Moreover, they felt accepted by others, and felt they had close friends with whom they could share their personal thoughts and feelings. Overall, these findings support the hypothesis that adolescents who fit into the prevailing cultural context enjoy healthy outcomes.

Being immersed in Asian culture is not necessarily detrimental, i.e., adopting a separation, or traditional, acculturation style (Phinney et al., 1990). However, the reason the adolescent chooses to be more involved in Asian culture is important. Are they choosing not to fit in with the majority culture because of their own preferences or are they are not being allowed to fit? For example, some adolescents want to engage in Western activities, such as hanging out with Caucasian-American friends and going to Caucasian-American parties and gatherings, but cannot because they are excluded, for instance, by their peers. In this sample, a majority of the participants (84%) reported feeling discriminated against because of their ethnicity. Asian adolescents who face discrimination from peers or adults of the majority culture may then turn to the Asian community for acceptance. Whether the lack of fit to the majority culture is or is not by choice has implications for the adolescent's well-being.

To summarize, in this sample, being highly involved in the ethnic culture may not

always be psychologically adaptive. In a relatively homogenous context where Western culture predominates, being "too Asian" may be detrimental. However, before making any definitive conclusions about the existence of a direct inverse relationship between involvement in one's ethnic culture and adjustment, an investigation into the mechanisms of this linkage is necessary. There may be some very Asian adolescents who function quite well in a Western setting. It would be important to test potential moderators or mediators (e.g., experiences of discrimination) between acculturation and outcomes.

The acculturation of adolescents did not significantly relate to how well late adolescents fit into their parent's autonomy expectations. Therefore, the investigator's prior assumption that Asian parents are more traditional than their late adolescents, may be false. If parents were indeed more Asian, it would be expected that late adolescents who were more Asian would experience better fit with parental autonomy expectations. However, this was not found.

Overall Model

The structural equation analyses offered support for the full autonomy model that linked autonomy, fit in the family, and acculturation, to adolescent functioning. This model predicted that the level of autonomy granted (emotional and behavioral) was associated with late adolescent adjustment. In addition, this model predicted that fit in the family regarding issues of autonomy, and fit in culture regarding general independence expectations, were also related to adjustment. The full model better predicted late adolescent adjustment than the other two submodels that examined autonomy in only one context. In other words, examining the cultural context together with the family context is

important to uncovering paths to late adolescent well-being.

Additional Findings

Although not central to the hypotheses of this study, the late adolescent's generational status and parents' length of residence in the U.S. were examined in relation to the adolescent's acculturation levels, emotional autonomy, and fit with parent autonomy expectations. Ting-Toomey's (1981) study of first, second, third and fourth generation Chinese American college students, found fourth generation Chinese-Americans to have higher levels of ethnic identity than second or third generation Chinese-Americans. Ting-Toomey argues that "the fourth generation seems to have searched back for their roots rather than assimilated themselves toward the dominant white culture." Lin and Liu's (1993) study of Chinese-American adult immigrants reported that the immigrants were more Chinese than their non-immigrant parents. These researchers contend that there was an "overcompensation" among the younger generation to "reconnect with their cultural heritage."

In this study, U.S. born Asian-American adolescents were more Asian in their attitudes and behaviors compared to foreign born Asian-American adolescents, supporting previous studies. Perhaps the U.S. born Asian-Americans felt it necessary to preserve their cultural identity more so than foreign-born Asian-Americans. The cultural identity of the foreign-born adolescents who have immigrated to the U.S. may be more firmly established. For example, they may be fluent in their native language and more familiar with their traditional customs. Subsequently, they may not feel the need to actively pursue Asian activities or join Asian groups to maintain their Asian identity. In contrast, U.S.

born Asian-Americans may seek out these activities and groups to reaffirm and retain their Asianness. Finding these generational differences highlights the diversity within this Asian sample.

The fact that U.S. born Asian-Americans actively hold on to aspects of their cultural heritage provides evidence for current models of acculturation (for example, Berry, 1980). These models propose that individuals do not simply give up all aspects of their traditional culture (i.e., completely assimilating) while living in a culture different from their own. But rather, they retain and modify certain aspects of their own culture's values and attitudes, and, concurrently, acquire new values and attitudes.

The length of time the late adolescent's parents resided in the U.S. correlated with several factors. The longer the adolescent's father or mother lived in the U.S., the less strongly the adolescent endorsed Asian values and attitudes. Conceivably, parents who have lived in the U.S. for many years may be more Westernized, and thus, may not have pushed their adolescent to strongly adhere to traditional Asian values.

Emotional autonomy was significantly correlated to the length of time the adolescent's mother, but not their father, lived in the U.S. Adolescents with mothers who lived in the U.S. longer reported more emotional autonomy from their parents. Mothers who have lived longer in the U.S. may have acquired more Western values, and thus, may have promoted more emotional autonomy in their adolescent. If this were true, it would support the notion that increased exposure to an individualistic culture such as the U.S. encourages individuals to adopt increasingly autonomous attitudes. However, without an assessment of the mother's level of acculturation, this is only speculation.

The longer the adolescent's parents lived in the U.S., the better the adolescent fit into parental autonomy expectations. Again, parents who have lived in the U.S. longer may have adopted more Westernized autonomy expectations. Thus, their adolescents might better fit their expectations compared to adolescents with parents that have been in the U.S. for a shorter time.

Explanations of the associations just reported are speculations. The length of time the parent has lived in the U.S. is not necessarily a marker for the level of acculturation the parent has undergone. There will most likely be some parents who will remain very traditional while others will become very Americanized. Thus, there is not enough evidence to offer concrete explanations of these additional findings.

Limitations

The sample consisted of various Asian groups representing 6 Asian countries. Although these groups share commonalities (e.g., a general geography, a collectivistic orientation, Confucian philosophy), each is distinguished by its specific history, customs, and language. The sample size for each group was not sufficient to allow for between-group comparisons. By combining and analyzing all the groups as a whole, unique group differences are lost. Future studies should examine these specific Asian groups separately to discover whether autonomy development proceeds in a similar manner for each group. Nonetheless, this study is still useful in understanding autonomy development for Asian-American adolescents in general.

One limitation of the study involved several of the measures. Participants were asked to respond to questions pertaining to their relationships with their parents.

However, a distinction between the mother and father was not made. Some participants expressed difficulty in answering these questions because they experienced very different relationships with each parent.

The importance of exploring mother-adolescent and father-adolescent relationships separately is revealed in findings that demonstrate that these relationships predict different adolescent outcomes. For example, Feldman and Wood (1994) reported that while mothers and fathers held similar autonomy timetable expectations for their preadolescent sons, only father expectations predicted their sons' later adolescent behavior regarding school performance, motivation, and social misconduct. The autonomy and connectedness measures used in this study did not capture potential differences between the predictive ability of the mother-adolescent versus the father-adolescent relationship for adolescent outcomes.

Implications for Future Research

It would be premature to suggest that Asian-American adolescents should be encouraged to adopt more Western and less Asian values and behaviors in order to promote more positive adjustment. Instead, future research should aim to uncover why this relationship exists. What are the specific processes that link the endorsement of Asian attitudes to more depression or lower self-esteem? Is it because the environment is not accepting of those who are not as Western? Is it because the adolescent is viewed as being too different?

This study focused on parental expectations of autonomy. It would be interesting to examine peer expectations as well. For example, how well do adolescents fit into

parent versus peer expectations? Do parental and peer autonomy expectations coincide? If not, does poor fit into parental expectations prompt adolescents to find friends with autonomy expectations more similar to their own? Furthermore, would Asian peers have different autonomy expectations compared to other peer groups?

Greenberger and Chen (1996) recommend researchers to investigate the timing of mismatching expectations. In other words, they want to know *when* a mismatch between adolescent and parent expectations begins. Based on their findings, they contend that this mismatch may occur in late adolescence when conflicts over autonomy arise. These researchers compared Asian-American to European-American early and late adolescents (college students) on depressed mood. They found no difference when comparing *early* adolescent Asian-Americans to European-Americans. Whereas, by *late* adolescence, Asian-Americans reported having significantly more depressed mood than European-Americans. When parent-adolescent interactions were taken into account, these ethnic differences disappeared.

The researchers propose that the difference in depressed mood emerging in late adolescence may signify difficulties in attaining autonomy in the home. The nature of the conflicts involved disputes over the late adolescent's "habits and routines, choice of friends and the activities engaged with friends, and privacy with respect to telephone calls and letters," all aspects of autonomy. The researchers argue that "late adolescent efforts at establishing autonomy are delayed in Asian American families perhaps because of their later expected age of independence in various domains. These efforts are less supported in Asian-American families because of cultural expectations for respect and obedience.

Asian Americans are more involved in a struggle for control than European-Americans."

Eccles and her colleagues (1991), on the other hand, assert that a mismatch in expectations may begin in early adolescence. They reason that, at this time, early adolescents gain increasing opportunities for unsupervised interactions with their peers. These peer relationships expose the adolescent to relationships that are equal in power and authority. As a result, this may lead the adolescent to increasingly expect the same equality at home. Thus, the early adolescent may push for more autonomy than their parents are ready to allow at this developmental stage.

The current study was conducted in the Midwest region of the U.S. It is plausible that different findings would emerge if this study were conducted in areas with much stronger Asian communities (e.g., in terms of population, or political influence) such as California or New York, or even other areas in the Midwest such as Chicago. For instance, perhaps Asian-American adolescents in these cities would not experience lower self-esteem or depression if they chose to immerse themselves in Asian culture because of the greater support network available.

Another avenue for future research would involve an investigation into the timing of puberty and its association with the allowance of autonomous behaviors. The adolescent's rate of maturation may affect how people react to him or her (Tanner, 1991). For instance, adolescents who experience the onset of puberty at an earlier age may be allowed to engage in autonomous behaviors earlier compared to the adolescent who remains physically and biologically more immature for a longer period of time, simply because the early maturing adolescent looks older. Although maturational timing was not

found to significantly relate to autonomy timetables in adolescent immigrants from Eastern Europe (Schmitt-Rodermund & Silbereisen, 1996), future research is needed to confirm these findings in other populations such as Asian-Americans.

Chapter 7

CONCLUSION

All adolescents deal with issues of autonomy. However, the timing, difficulty, and resulting outcomes of this task will vary for each adolescent, depending on their individual characteristics, parental expectations, cultural expectations, and community characteristics. For some adolescents there will be an easy transition to independence, while for others it will be a hard-fought struggle.

It is proposed that adolescents' autonomy from their parents, connectedness to their parents, and resultant adjustment, can only be understood in the context of the prevailing culture(s). The developmental goals that parents have for their adolescents varies across cultures (Greenfield, 1994). These developmental goals will shape their parenting beliefs, expectations, and behaviors (Goodnow & Collins, 1990). When parents immigrate to another culture that promotes developmental goals different from their own, their adolescents may experience incongruent, sometimes conflicting, ideals (e.g., regarding autonomy timetables) between those of their parents and the larger society. The minority adolescent, then, is challenged to successfully navigate through these different world views.

The findings of this study have underscored the importance of individual-

environment fit. Rather than generalizing about the optimal timing or degree of autonomy adolescents should be granted, each adolescent must be assessed in relation to their context. The goodness of fit model and the concept of acculturation highlight the significance of the interplay between adolescents and their environmental demands. Future research should continue to examine how adolescents fit into familial and cultural expectations of autonomy. In doing so, we will gain a fuller understanding of their journey towards autonomy into the larger society.

APPENDICES

APPENDIX A

APPENDIX A

CONSENT FOR PARTICIPATION FORM

This is a form asking you to participate in a research study on the development of autonomy (independence) in Asian-Americans. The purpose of this study is to gain a better understanding of autonomy and how this relates to family relationships in Asian-Americans. You will be asked to fill out a set of questionnaires.

Your participation is completely voluntary and you will be free to refuse or stop at any time without penalty. All the information you provide will be number-coded to insure complete anonymity. There will be no way for anyone (including the principal investigator) to associate your responses with your identity. The results from this study will be treated with strict confidence and the participants will remain anonymous in any report of research findings. With these restrictions, the results of this investigation can be made available to participants upon request.

As a thank you for participating, you can enter a drawing after completing the questionnaire by writing down your name and address where we can reach you. At the end of data collection, three participants will be randomly chosen and two will receive a $50 certificate, the other two will receive a $25 certificate.

If you have any questions (now or at a later time), please feel free to contact me:

Linda Juang, Principal Investigator
Department of Psychology
Michigan State University
129 Psychology Research Building
East Lansing, MI 48824

Phone: (517) 432-3843
E-mail: juanglin@pilot.msu.edu

Thank you for your time.

Please read the following. If you agree to participate, please sign below.

I understand what participation in this study involves, that any information about me obtained from this research will not be traceable to me, and that I am free to withdraw from participating at any time.

Signature _____ Date _____

Investigator _____ Date _____

APPENDIX B

APPENDIX B

COVARIANCE MATRIX OF FULL LISREL MODEL

	GPA	Insecurity with Parents	Misconduct	Depression	Global Esteem	Academic Esteem
GPA	0.222					
Insecurity with Parents	-0.010	0.296				
Misconduct	-0.020	0.010	0.172			
Depression	-0.040	0.112	0.067	0.292		
Global Esteem	0.054	-0.125	-0.013	-0.239	0.372	
Academic Esteem	0.116	-0.146	-0.048	-0.192	0.265	0.432
Social Esteem	0.017	-0.102	-0.021	-0.241	0.298	0.184
Friend Esteem	-0.042	-0.158	-0.006	-0.222	0.267	0.172
Intelligence Esteem	0.069	-0.120	-0.046	-0.192	0.268	0.291
Work Attitude	0.039	-0.055	-0.037	-0.075	0.073	0.105
Involve U.S.	0.006	-0.015	0.001	-0.052	0.035	0.020
Involve Asian	-0.010	0.009	0.005	0.065	-0.041	-0.052
Behave U.S.	0.006	-0.041	0.016	-0.099	0.087	0.055
Behave Asian	-0.026	0.028	0.022	0.106	-0.082	-0.079
Emotional Autonomy	0.000	0.080	0.031	0.022	-0.009	0.000
Connectedness	0.037	-0.156	-0.021	-0.051	0.057	0.054
Autonomy Timetable	0.008	0.157	-0.005	0.036	-0.047	-0.076
Timetable Fit	0.006	0.103	0.014	0.014	-0.037	-0.036
How Decisions Fit	-0.015	0.191	0.044	0.097	-0.077	-0.065
How Often Fit	-0.032	0.234	-0.009	0.067	-0.110	-0.086

	Social Esteem	Friend Esteem	Intelligence Esteem	Work Attitude	Involve U.S.	Involve Asian
Social Esteem	0.566					
Friend Esteem	0.382	0.633				
Intelligence Esteem	0.164	0.162	0.391			
Work Attitude	0.071	0.064	0.091	0.148		
Involve U.S.	0.043	0.042	-0.006	0.027	0.161	
Involve Asian	-0.050	-0.053	-0.026	0.001	-0.094	0.197
Behave U.S.	0.095	0.114	0.039	0.064	0.147	-0.111
Behave Asian	-0.089	-0.060	-0.065	-0.001	-0.121	0.206
Emotional Autonomy	-0.015	-0.028	-0.017	-0.009	0.016	-0.040
Connectedness	0.083	0.107	0.057	0.033	-0.004	0.042
Autonomy Timetable	0.008	-0.109	-0.101	-0.027	-0.009	0.063
Timetable Fit	-0.043	-0.056	-0.042	-0.020	0.023	-0.011
How Decisions Fit	-0.060	-0.127	-0.082	-0.001	-0.014	-0.014
How Often Fit	-0.042	-0.153	-0.133	-0.009	0.003	0.013

COVARIANCE MATRIX (Cont'd)

	Behave U.S.	Behave Asian	Emotional Autonomy	Connectedness	Autonomy Timetable	Timetable Fit
Behave U.S.	0.316					
Behave Asian	-0.177	0.477				
Emotional Autonomy	0.001	-0.005	0.102			
Connectedness	0.042	-0.038	-0.114	0.276		
Autonomy Timetable	-0.021	0.031	0.031	-0.077	0.326	
Timetable Fit	0.012	-0.020	0.055	-0.091	0.127	0.134
How Decisions Fit	-0.017	-0.087	0.104	-0.188	0.185	0.123
How Often Fit	-0.043	0.058	0.103	-0.268	0.182	0.152

	How Decisions Fit	How Often Fit
How Decisions Fit	0.565	
How Often Fit	0.350	0.757

APPENDIX C

APPENDIX C

CORRELATED ERROR TERMS FOR FULL LISREL MODEL

THETA-EPS

	GPA	Insecurity with Parents	Misconduct	Depression	Global Esteem	Academic Esteem
GPA	0.184					
Insecurity with Parents	- -	0.191				
Misconduct	- -	- -	0.097			
Depression	- -	- -	- -	0.036		
Global Esteem	- -	0.022	0.039	0.058	-0.015	
Academic Esteem	0.057	- -	- -	- -	- -	0.197
Social Esteem	- -	- -	- -	- -	- -	- -
Friend Esteem	-0.047	- -	- -	- -	- -	- -
Intelligence Esteem	- -	- -	- -	- -	- -	0.075
Work Attitude	- -	- -	- -	- -	-0.032	- -

	Social Esteem	Friend Esteem	Intelligence Esteem	Work Attitude
Social Esteem	0.282			
Friend Esteem	0.133	0.342		
Intelligence Esteem	- -	- -	0.168	
Work Attitude	- -	- -	- -	0.093

THETA-DELTA-EPS

	GPA	Insecurity with Parents	Misconduct	Depression	Global Esteem	Academic Esteem
Involve U.S.	- -	- -	- -	- -	- -	- -
Involve Asian	- -	- -	- -	- -	0.019	- -
Behave U.S.	- -	- -	- -	- -	- -	- -
Behave Asian	- -	- -	- -	- -	- -	- -
Emotional Autonomy	- -	0.066	- -	- -	- -	0.011
Connectedness	0.028	-0.103	- -	- -	- -	- -
Autonomy Timetable	- -	0.099	-0.011	- -	- -	- -
Timetable Fit	- -	0.078	- -	-0.009	- -	- -
How Decisions Fit	- -	0.140	- -	0.025	- -	- -
How Often Fit	- -	0.167	-0.016	- -	- -	- -

THETA-DELTA-EPS (Cont'd)

	Social Esteem	Friend Esteem	Intelligence Esteem	Work Attitude
Involve U.S.	- -	- -	-0.013	0.029
Involve Asian	- -	- -	0.014	- -
Behave U.S.	- -	- -	- -	0.058
Behave Asian	- -	- -	- -	- -
Emotional Autonomy	- -	- -	- -	- -
Connectedness	- -	- -	- -	- -
Autonomy Timetable	0.049	- -	-0.035	- -
Timetable Fit	- -	- -	- -	- -
How Decisions Fit	- -	- -	- -	0.023
How Often Fit	0.055	- -	- -	- -

THETA-DELTA

	Involve U.S.	Involve Asian	Behave U.S.	Behave Asian	Emotional Autonomy	Connectedness
Involve U.S.	0.096					
Involve Asian	- -	0.004				
Behave U.S.	0.068	- -	0.188			
Behave Asian	- -	- -	-0.016	0.207		
Emotional Autonomy	- -	- -	- -	0.012	0.025	
Connectedness	- -	- -	0.014	-0.043	- -	0.075
Autonomy Timetable	- -	- -	- -	- -	- -	- -
Timetable Fit	- -	- -	- -	- -	- -	- -
How Decisions Fit	- -	-0.046	- -	-0.130	- -	- -
How Often Fit	- -	- -	- -	- -	-0.044	- -

	Autonomy Timetable	Timetable Fit	How Decisions Fit	How Often Fit
Autonomy Timetable	0.164			
Timetable Fit	0.049	0.063		
How Decisions Fit	- -	- -	0.277	
How Often Fit	- -	- -	- -	0.265

APPENDIX D

APPENDIX D

PARAMETER ESTIMATES FOR FULL LISREL MODEL

LAMBDA-Y

	Adjustment
GPA	0.095
Insecurity with Parents	-0.185
Misconduct	-0.147
Depression	-0.450
Global Esteem	0.570
Academic Esteem	0.393
Social Esteem	0.394
Friend Esteem	0.336
Intelligence Esteem	0.404
Work Attitude	0.163

LAMBDA-X

	Acculturation	Autonomy	Fit in the Family
Involve U.S.	0.182	- -	- -
Involve Asian	-0.409	- -	- -
Behave U.S.	0.198	- -	- -
Behave Asian	-0.417	- -	- -
Emotional Autonomy	- -	0.234	- -
Connectedness	- -	-0.366	- -
Autonomy Timetable	- -	-0.383	0.591
Timetable Fit	- -	- -	0.222
How Decisions Fit	- -	- -	0.469
How Often Fit	- -	- -	0.590

GAMMA

	Acculturation	Autonomy	Fit in the Family
Adjustment	0.416	-0.594	0.416

APPENDIX E

APPENDIX E

COVARIANCE MATRIX OF LISREL SUBMODEL 1

	GPA	Insecurity with Parents	Misconduct	Depression	Global Esteem	Academic Esteem
GPA	0.222					
Insecurity with Parents	-0.010	0.296				
Misconduct	-0.020	0.010	0.172			
Depression	-0.040	0.112	0.067	0.292		
Global Esteem	0.054	-0.125	-0.013	-0.239	0.372	
Academic Esteem	0.116	-0.146	-0.048	-0.192	0.265	0.432
Social Esteem	0.017	-0.102	-0.021	-0.241	0.298	0.184
Friend Esteem	-0.042	-0.158	-0.006	-0.222	0.267	0.172
Intelligence Esteem	0.069	-0.120	-0.046	-0.192	0.268	0.291
Work Attitude	0.039	-0.055	-0.037	-0.075	0.073	0.105
Emotional Autonomy	0.000	0.080	0.031	0.022	-0.009	0.000
Connectedness	0.037	-0.156	-0.021	-0.051	0.057	0.054
Autonomy Timetable	0.008	0.157	-0.005	0.036	-0.047	-0.076
Timetable Fit	0.006	0.103	0.014	0.014	-0.037	-0.036
How Decisions Fit	-0.015	0.191	0.044	0.097	-0.077	-0.065
How Often Fit	-0.032	0.234	-0.009	0.067	-0.110	-0.086

	Social Esteem	Friend Esteem	Intelligence Esteem	Work Attitude	Emotional Autonomy	Connectedness
Social Esteem	0.566					
Friend Esteem	0.382	0.633				
Intelligence Esteem	0.164	0.162	0.391			
Work Attitude	0.071	0.064	0.091	0.148		
Emotional Autonomy	-0.015	-0.028	-0.017	-0.009	0.102	
Connectedness	0.083	0.107	0.057	0.033	-0.114	0.276
Autonomy Timetable	0.008	-0.109	-0.101	-0.027	0.031	-0.077
Timetable Fit	-0.043	-0.056	-0.042	-0.020	0.055	-0.091
How Decisions Fit	-0.060	-0.127	-0.082	-0.001	0.104	-0.188
How Often Fit	-0.042	-0.153	-0.133	-0.009	0.103	-0.268

	Autonomy Timetable	Timetable Fit	How Decisions Fit	How Often Fit
Autonomy Timetable	0.326			
Timetable Fit	0.127	0.134		
How Decisions Fit	0.185	0.123	0.565	
How Often Fit	0.182	0.152	0.350	0.757

APPENDIX F

APPENDIX F

APPENDIX F

COVARIANCE MATRIX FOR LISREL SUBMODEL 2

	GPA	Insecurity with Parents	Misconduct	Depression	Global Esteem	Academic Esteem
GPA	0.222					
Insecurity with Parents	-0.010	0.296				
Misconduct	-0.020	0.010	0.172			
Depression	-0.040	0.112	0.067	0.292		
Global Esteem	0.054	-0.125	-0.013	-0.239	0.372	
Academic Esteem	0.116	-0.146	-0.048	-0.192	0.265	0.432
Social Esteem	0.017	-0.102	-0.021	-0.241	0.298	0.184
Friend Esteem	-0.042	-0.158	-0.006	-0.222	0.267	0.172
Intelligence Esteem	0.069	-0.120	-0.046	-0.192	0.268	0.291
Work Attitude	0.039	-0.055	-0.037	-0.075	0.073	0.105
Involve U.S.	0.006	-0.015	0.001	-0.052	0.035	0.020
Involve Asian	-0.010	0.009	0.005	0.065	-0.041	-0.052
Behave U.S.	0.006	-0.041	0.016	-0.099	0.087	0.055
Behave Asian	-0.026	0.028	0.022	0.106	-0.082	-0.079
Emotional Autonomy	0.000	0.080	0.031	0.022	-0.009	0.000
Connectedness	0.037	-0.156	-0.021	-0.051	0.057	0.054
Autonomy Timetable	0.008	0.157	-0.005	0.036	-0.047	-0.076

	Social Esteem	Friend Esteem	Intelligence Esteem	Work Attitude	Involve U.S.	Involve Asian
Social Esteem	0.566					
Friend Esteem	0.382	0.633				
Intelligence Esteem	0.164	0.162	0.391			
Work Attitude	0.071	0.064	0.091	0.148		
Involve U.S.	0.043	0.042	-0.006	0.027	0.161	
Involve Asian	-0.050	-0.053	-0.026	0.001	-0.094	0.197
Behave U.S.	0.095	0.114	0.039	0.064	0.147	-0.111
Behave Asian	-0.089	-0.060	-0.065	-0.001	-0.121	0.206
Emotional Autonomy	-0.015	-0.028	-0.017	-0.009	0.016	-0.040
Connectedness	0.083	0.107	0.057	0.033	-0.004	0.042
Autonomy Timetable	0.008	-0.109	-0.101	-0.027	-0.009	0.063

	Behave U.S.	Behave Asian	Emotional Autonomy	Connectedness	Autonomy Timetable
Behave U.S.	0.316				
Behave Asian	-0.177	0.477			
Emotional Autonomy	0.001	-0.005	0.102		
Connectedness	0.042	-0.038	-0.114	0.276	
Autonomy Timetable	-0.021	0.031	0.031	-0.077	0.326

APPENDIX G

APPENDIX G

PARAMETER ESTIMATES FOR LISREL SUBMODEL 1

LAMBDA-Y

	Adjustment
GPA	0.085
Insecurity with Parents	-0.209
Misconduct	-0.133
Depression	-0.485
Global Esteem	0.600
Academic Esteem	0.406
Social Esteem	0.438
Friend Esteem	0.388
Intelligence Esteem	0.421
Work Attitude	0.162

LAMBDA-X

	Autonomy	Fit in the Family
Emotional Autonomy	0.251	- -
Connectedness	-0.418	- -
Autonomy Timetable	-0.255	0.444
Timetable Fit	- -	0.223
How Decisions Fit	- -	0.472
How Often Fit	- -	0.626

GAMMA

	Autonomy	Fit in the Family
Adjustment	0.026	-0.229

APPENDIX H

APPENDIX H

PARAMETER ESTIMATES FOR LISREL SUBMODEL 2

LAMBDA-Y

	Adjustment
GPA	0.093
Insecurity with Parents	-0.138
Misconduct	-0.155
Depression	-0.451
Global Esteem	0.573
Academic Esteem	0.392
Social Esteem	0.418
Friend Esteem	0.330
Intelligence Esteem	0.399
Work Attitude	0.163

LAMBDA-X

	Acculturation	Autonomy
Involve U.S.	0.182	- -
Involve Asian	-0.436	- -
Behave U.S.	0.197	- -
Behave Asian	-0.384	- -
Emotional Autonomy	- -	-0.116
Connectedness	- -	0.133
Autonomy Timetable	- -	0.223

GAMMA

	Acculturation	Autonomy
Adjustment	0.245	0.088

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