Perceived acculturation discrepancies and intergenerational conflict in Asian Canadian families

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Perceived Acculturation Discrepancies and Intergenerational Conflict in Asian Canadian Families

by

Vanessa Chong

A Thesis
Submitted to the Faculty of Graduate Studies and Research through Psychology
in Partial Fulfillment of the Requirements for the Degree of Master of Arts at the University of Windsor

Windsor, Ontario, Canada

2007

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ABSTRACT

Research on Asian immigrant families indicates that children often acculturate to the host culture more quickly than their parents, resulting in parent-child acculturation discrepancies, intergenerational conflicts, and psychological distress. The existing literature focuses on adolescents, and little is known about young adults' experiences. Furthermore, there is a need in the current literature to apply a bilineal model of acculturation, in which orientations towards the heritage and mainstream cultures exist on separate dimensions. This study used a Web-based survey to examine the degree to which demographic factors, perceived parent-child bilineal acculturation discrepancies, and intergenerational conflicts predicted distress in 179 Asian Canadian young adults. Hierarchical multiple regression results indicated that mother-child heritage acculturation discrepancies predicted mother-child conflicts. Mother-child conflicts predicted distress, whereas father-child conflicts did not. Canadian acculturation predicted distress over and above perceived parent acculturation and parent-child acculturation discrepancies. Results are discussed in terms of implications for research and counselling.
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CHAPTER I
INTRODUCTION

In 2001, 18% of Canada’s population was comprised of immigrants, and by 2017 the immigrant population is estimated to increase by 24 to 65%, reaching between 7.0 and 9.3 million people (Statistics Canada, 2005). Furthermore, the percentage of the total Canadian population who reported Asian as their ethnic origin was almost 10%, according to the 2001 census. Between 1986 and 2001, the percentage of Asians in Canada almost tripled. Given the increasing immigrant population in Canada and the relatively large Asian population in Canada, it is crucial that research examines the impact migration has on Asian Canadian immigrants. One emerging area of research focuses on the adverse psychological impact migration can have on immigrants and their family relationships (Kwak, 2003; Lee, Su, & Yoshida, 2005; Wong, 2001). The stresses which accompany cultural transition may lead to parent-child conflicts in Asian immigrant families, especially when the children in these families enter young adulthood (Greenberger & Chen, 1996; Lee et al., 2005).

According to North American developmental norms, adolescence is a time when individuals seek autonomy and more independence from their parents, as they attempt to establish their own personal identities. These developmental changes lead to a period of negotiation between parents and their children, which may contribute to increased intergenerational conflicts (Laursen & Collins, 1994). Despite the fact that adolescent individuation and the resulting intergenerational conflicts may lead to strain on the family, in North American non-immigrant families these conflicts often stabilize by young adulthood (Laursen & Collins, 1994). However, Asian immigrant youths often
seek autonomy at later ages than do non-immigrant youths (Feldman & Rosenthal, 1990; Fuligni, 1998). Therefore, the number and intensity of intergenerational conflicts may escalate at later ages for Asian immigrant children, namely during young adulthood (Greenberger & Chen, 1996). Despite these findings, the vast majority of studies on intergenerational conflicts in Asian immigrant families have been conducted on adolescent samples, and little is known about the experiences of Asian immigrant young adults.

Among Asian immigrant families, intergenerational conflicts are often rooted in the cultural adjustment of family members. Asian immigrant youths often adjust to the host culture more quickly than their parents (Buki, Ma, Strom, & Strom, 2003; Chung, 2001; Kwak, 2003; Lee, Choe, Ki, & Ngo, 2000; Sharir, 2002; Tang & Dion, 1999; Uba, 1994). This phenomenon has been called “dissonant acculturation” (Portes, 1997), “acculturation gap” (Lee, et al., 2000), “acculturation disparities” (Tardif & Geva, 2006), or “acculturation discrepancies” (Crane, Ngai, Larson, & Hafen, 2005) in the literature. Larger acculturation discrepancies in Asian immigrant families may contribute to greater and more intense intergenerational conflicts (Lee et al., 2000).

As a consequence of intergenerational conflicts, Asian immigrant youths may be at a high risk for various psychological adjustment problems (Lee, et al. 2005; Wong, 2001). Although intergenerational conflict is also associated with psychological adjustment problems in non-immigrants (Nelson, Hughes, Handal, & Katz, 1993), this conflict has the potential to impact immigrant families more negatively than non-immigrant families for two reasons. First, intergenerational conflict in immigrant families occurs in the context of cultural transition, which exacerbates stress and
psychological distress (Berry, Kim, Minde, & Mok, 1987). In the case of Asian immigrant families, acculturation-related stressors (e.g., language barriers) may add to heightened intergenerational conflict and higher levels of psychological distress in Asian immigrant families, as compared to non-immigrant families (Greenberger & Chen, 1996). Second, due to the fact that traditional Asian values promote interdependence, loyalty, obligation, respect for authority, and maintaining harmony in the family (Kim, Atkinson, & Yang, 1999; Uba, 1994), intergenerational conflicts may be perceived as being more serious in Asian immigrant families than in non-immigrant families (Lee & Liu, 2001). These conflicts threaten traditional Asian values and may lead to more negative psychological outcomes for the immigrant group.

Therefore, acculturation discrepancies may lead to considerable intergenerational conflict for Asian Canadian immigrant families. As a consequence, Asian Canadian young adults may develop psychological adjustment problems related to acculturation discrepancies across generations within the family. It is important that these issues are examined because few existing research studies have been conducted on Asian Canadian young adults within the family context. In order to understand the challenges Asian Canadian young adults encounter during cultural transition and to help them overcome these challenges, it is imperative to study intergenerational conflicts among Asian Canadian immigrant families.
CHAPTER II
REVIEW OF LITERATURE

This chapter reviews the literature on the impact of immigration on intergenerational conflict and the resulting psychological effects of this conflict on Asian families. Additionally, research on the effects of parent-child acculturation discrepancies on intergenerational conflict is reviewed.

Intergenerational Conflict Among Asian Immigrant Families

Conflict between parents and their children often begins during adolescence, when issues of autonomy and independence are becoming increasingly salient for youths (Laursen & Collins, 1994). In North America, adolescence is characterized by the development of personal identities and the increased reliance on peers as sources of social support (Laursen & Collins, 1994). In general, family conflict stabilizes, and the psychological well-being of youths improves by late adolescence and young adulthood (i.e., between the ages of 17 and 22) (Laursen, Coy, & Collins, 1998). However, for immigrant youths, family conflict and psychological adjustment problems can persist or become more severe during young adulthood. Research suggests that the developmental trajectories of intergenerational conflict are not uniform across cultures. For example, Greenberger and Chen (1996) conducted a study comparing 173 adolescents with 297 college students of European, Korean, and Chinese American ethnic backgrounds. They found that the differences in intergenerational conflicts between Asian American (i.e., Korean and Chinese American) and European American families were not apparent in the adolescent sample. However, Asian college students reported more family conflict, less family cohesion, and less parental warmth and acceptance than did European American
college students. The study suggested that parent-adolescent conflicts tend to peak earlier in European non-immigrant families, but later in Asian immigrant families. This may be due to the fact that Asian youths tend to seek autonomy from their parents later than do European American youths (Feldman & Rosenthal, 1990; Fuligni, 1998; Kwak, 2003).

Although the developmental trajectory of intergenerational conflict seems to differ cross-culturally, research findings on the intensity of intergenerational conflict across cultural groups are mixed. Some research suggests that intergenerational conflict severity is similar across cultures. For example, Fuligni (1998) found that Mexican, Chinese, Filipino, and European American adolescents reported similar levels of conflict and cohesion with their parents, despite holding different beliefs about autonomy and parent authority. Conversely, other research suggests that intergenerational conflict tends to be more severe in Asian families than in European non-immigrant families. In a sample of 406 European American, Asian American, and Hispanic American college students, Lee and Liu (2001) found that Asian Americans reported higher levels of intergenerational conflict than students from the other two ethnic groups.

Intergenerational conflicts in Asian immigrant families can also be differentiated from conflicts in non-immigrant families because they tend to be closely connected to immigration and cultural issues. Although immigrant families are likely to experience many of the same difficulties as non-immigrant families, the processes of immigration and acculturation represent added stressors which might contribute to more intense intergenerational conflicts for the immigrant group. Potential stressors include parent-child acculturation discrepancies, as well as intergenerational discrepancies in values and
behavioural expectations, which are closely related to parent-child acculturation discrepancies.

*Acculturation Discrepancies*

One common problem encountered by immigrant families is the fact that children often acculturate to the host culture more quickly than their parents (Buki et al., 2003; Chung, 2001; Farver, Narang, & Bhadha, 2002; Kwak, 2003; Lee, et al., 2000; Portes, 1997; Rosenthal, 1984; Sharir, 2002; Sluzki, 1979; Szapocznik & Kurtines, 1993; Tang & Dion, 1999; Tardif & Geva, 2006; Uba, 1994). Dissonant acculturation often contributes to intergenerational conflicts, which may arise when immigrant children adopt more individualistic attitudes than their parents, who may hold more collectivistic attitudes (Evans & Lee, 1998). Immigrant children often feel torn between a desire to fit in with peers and a desire to please their parents (Uba, 1994). However, immigrant parents often interpret their children’s acceptance of the majority culture and rejection of the ethnic culture as signs of disrespect and erosion of cultural values (Baptiste, 1990, 2019; Merali, 2004).

Intergenerational acculturation discrepancies have also been linked to various family difficulties for immigrants, including more parent-child communication problems (Buki, et al., 2003), less satisfactory parenting experiences for the parents (Buki, et al., 2003), less satisfactory parent-child relationships (Dinh, Sarason, & Sarason, 1996; Sharir, 2002), poorer family functioning (Crane, et al., 2005), and greater family conflict in general (Costigan & Dokis, 2006; Farver, Narang, & Bhadha, 2002; Lee, et al., 2000; Tardif & Geva, 2006). For example, in a study by Tardif and Geva (2006), 164 Chinese Canadian mother-adolescent dyads were grouped according to mother (low, high) and
adolescent (low, high) acculturation levels, forming four groups (the high/low group, the high/high group, the low/low group, and the low/high group). In addition to reporting a greater number of family conflicts in general, mothers in the low/high group were more likely to report interpersonal conflicts (e.g., fighting with siblings or parents, refusing to take part in family activities) than those in the high/high or low/low groups (too few participants were grouped in the high/low group, and were not included in the analysis). In another study by Costigan and Dokis (2006), 91 Chinese Canadian parent-adolescent dyads rated their orientations towards the Chinese and Canadian cultures in terms of language use, media use, and values. After child and parent acculturation levels were controlled, it was found that mother-child discrepancies in Chinese language use and Chinese media use predicted mother-child conflicts. Father-child discrepancies in Chinese values predicted father-child conflicts. These studies suggested that dissonant acculturation is a significant contributor to intergenerational conflicts in Asian immigrant families.

The literature has identified a few key issues which tend to contribute to conflicts among Asian immigrant family members, including family obligations, dating and marriage, and academic achievement. Expectations for family obligations (i.e., current assistance to the family, spending time with and respecting family members, visiting extended family, intending to support the family in the future) are key sources of conflict in many immigrant families, especially those from collectivistic cultures (Chao & Tseng, 2002; DuongTran, Lee, & Khoi, 1996; Fuligni, Tseng, & Lam, 1999; Phinney, Ong, & Madden, 2000; Phinney & Ong, 2002). Research indicates that Asian immigrant families have higher expectations for family obligations than European non-immigrant families.
(Fuligni et al., 1999). Research has also demonstrated that greater parent-child discrepancies in expectations for family obligations may be linked to heightened family difficulties (Fuligini, et al., 1999; Phinney et al., 2000; Phinney & Ong, 2002). For example, in a sample of 103 Vietnamese American and 135 European American families (Phinney & Ong, 2002), discrepancies in expectations for family obligations were larger in Vietnamese families. Furthermore, for those Vietnamese adolescents who were born in the United States, there was a negative correlation between discrepancies in expectations for family obligations and life satisfaction.

Other studies have demonstrated that dating and marriage are also main sources of parent-child conflicts, especially for female immigrant children (Baptiste, 1993; Chung, 2001; Fuligni et al., 1999). Some Asian parents have had no personal dating experience, as their marriages were arranged (Uba, 1994). Consequently, Asian parents may see dating as a waste of time, and may not allow their children to date (Reglin & Adams, 1990). Additionally, Asian parents may prefer that their children practice endogamous marriages (i.e., marry within their ingroups). For example, Kwak and Berry (2001) found that Asian parents who had greater parental authority were more likely to oppose exogamous (interracial) marriages and endorse endogamous (intraracial) marriages.

More acculturated Asian immigrant children, on the other hand, may wish to base their selection of marriage partners on Westernized ideals of romantic love, regardless of the ethnicities of potential partners (Baptiste, 1993).

Differing values and behavioural expectations regarding academic achievement may also contribute to intergenerational conflict. In families characterized by interdependency, achievement motivation is a group rather than an individual concern.
In other words, interdependently-oriented individuals, such as Asians, strive for academic excellence in order to enhance the family’s social standing (Markus & Kitayama, 1991) and to show appreciation for their parents’ sacrifices (Baptiste, 1993). Unfortunately, children in Asian immigrant families may feel too pressured to succeed in school, and experience conflicts when their academic performance does not meet the standards of their parents (DuongTran et al., 1996; Leung, 2001). Furthermore, Asian parents may be less likely than non-immigrant parents to praise their children when their children do succeed, leading the children to feel that their efforts are not acknowledged (Uba, 1994). Socially, children in Asian immigrant families may also feel conflicted, because they must become more acculturated by making new friends, learning English, and becoming more Westernized in order to succeed in the host culture (Baptiste, 1993; Uba, 1994). At the same time, their parents may emphasize retaining traditional values and ways of life. Additionally, when Asian immigrant children move away from home to attend post-secondary institutions or to obtain a better job, this can be interpreted by parents as signs of their children’s disloyalty, disrespect, and lack of gratitude (Uba, 1994). Parents may also expect their children to choose careers which reflect well on the family and expect their children to take care of their elderly parents in the future (Uba, 1994). Children in Asian immigrant families may therefore feel torn between choosing a career based on family obligation and showing gratitude for their parents’ sacrifices and choosing a career based on personal interests and abilities (Uba, 1994).

Parent-child acculturation discrepancies, which may be reflected in terms of differing values and behavioural expectations, are often sources of intergenerational
conflicts among Asian immigrant families (Kwak, 2003). According to previous research (e.g., Fuligni et al., 1999; Uba, 1994), these conflicts revolve around a wide range of interpersonal issues, including family obligations, marriage and dating, and academic and career achievement. Since interpersonal harmony is an important traditional Asian value, intergenerational conflicts may be especially stressful for Asian immigrant families, and may lead to psychological adjustment problems in family members.

Impact of Family Conflict on Psychological Adjustment

While family conflict is a normal and universal phenomenon in most families, immigration-related stressors can lead to prolonged intergenerational conflicts, which can significantly contribute to psychological distress for immigrant family members (Lee et al., 2005). Family stressors in immigrant families can also contribute to heightened intergenerational conflicts, thus perpetuating the cycle of family difficulties. In Greenberger and Chen's (1996) study, both family conflict and depression levels were found to be higher in Asian American adolescents and young adults than their European American counterparts. However, once parental warmth and acceptance and parent-child conflict were controlled, ethnic differences on depression were no longer significant, suggesting that the level of intergenerational conflict was the source of psychological distress for the Asian American youths.

Several other studies have demonstrated that intergenerational conflict and negative parent-child relationships are related to a wide range of psychological outcomes in both immigrant parents and their children. Intergenerational relationships have been found to be associated with depression (Abouguendia & Noels, 2001; Crane et al., 2005; Chiu, Feldman, & Rosenthal, 1992; Greenberger & Chen, 1996; Harker, 2001; Hovey &
King, 1996; Lay & Safdar, 2003; Park, 2003; Wong, 2001), anxiety (Chiu et al., 1992),
low self-esteem (Chiu et al., 1992; Gil, Vega, & Dimas, 1994; Park, 2003), and general
psychological distress (Kwak, 2003; Lee & Liu, 2001; Lee et al., 2005; Sharir, 2002).

For example, Harker (2001) investigated a sample of 13,350 adolescents immigrants
(i.e., Mexican, Cuban, Central/ South American, Puerto Rican, African/ Afro Caribbean,
Chinese, Filipino, other Asian/ Pacific Islander, and European/ Canadian immigrants)
based on the U.S. National Longitudinal Study of Adolescent Health, conducted between
1994 and 1995. Among the first generation immigrant adolescents, more parental
supervision, greater closeness with parents, less parent-child conflict, and more social
support predicted less depression. Similarly, Wong (2001) found that positive parent-
child relationships predicted less depression in a sample of 114 Chinese and Southeast
Asian American adolescents in the United States. Additionally, in a sample of 117 Asian
(i.e., Chinese, Filipino, Vietnamese, Korean, South Asian, and other Southeast Asian)
American college students, Lee et al. (2005) found that intergenerational conflict was
related to less positive affect, more negative affect, and more somatic complaints.

Furthermore, intergenerational conflict was inversely correlated to family satisfaction,
suggesting that heightened intergenerational conflict combined with lowered family
satisfaction put immigrant children at greater risk for psychological adjustment problems.

Despite the fact that some studies have suggested that levels of intergenerational
conflict might be comparable across European North American and Asian North
American families (Fuligni, 1998; Phinney, et al., 2000; Phinney & Ong, 2002), the
content of the conflict is likely to differ between these groups. As noted previously,
intergenerational conflicts in Asian immigrant families are often related to acculturation
and cultural adjustment issues. Furthermore, the psychological impact of the intergenerational conflict may be more serious for Asian family members. For instance, in Asian families, arguing with parents may be perceived as being a more serious transgression, because of Asian values' emphasis on respect for authority and maintaining harmonious relationships (Uba, 1994). Consequently, when intergenerational conflict does occur in Asian immigrant families, family members may perceive it as being more stressful and problematic. On the other hand, some studies suggest that variables associated with Asian values, such as social support, protect these individuals from the negative effects of the conflicts (Lee et al., 2005; Su et al., 2005). Thus, the degree to which intergenerational conflicts impact Asian immigrant family members, as compared to their non-Asian counterparts, is currently unclear.

Summary

Autonomy seeking and subsequent parent-child conflict may occur later for Asian immigrant youths, when they children reach young adulthood (Feldman & Rosenthal, 1990; Fuligni, 1998; Greenberger & Chen, 1996). Given that Asian cultures emphasize interdependence, respect for authority, and maintaining harmony, intergenerational conflicts may be more stressful for Asian immigrant family members. Various factors related to immigration may serve to mitigate or exacerbate family difficulties, including acculturation discrepancies between immigrant children and parents, intergenerational differences in values and behavioural expectations, and the stressful experiences of cultural transition.
Acculturation

Given that parent-child acculturation discrepancies are important contributors to intergenerational conflicts in Asian immigrant families (Kwak, 2003), the current section will review the existing literature on acculturation theory and measurement.

Definition

Acculturation represents a process of cultural adaptation, and can be conceptualized at both the group and individual levels. According to early research on group-level acculturation, the construct "comprehends those phenomena which result when groups of individuals sharing different cultures come into continuous first-hand contact, with subsequent changes in the original culture patterns of either or both groups" (Redfield, Linton, & Herskovits, 1936, p.149). However, although it is possible for members in both contacting groups to change, in reality one group usually changes more than the other (Berry, 1990). In general, individuals who migrate to a host culture usually alter their cultural patterns more than individuals from the host culture.

In addition to change at the group level, changes can also occur at the individual level, a phenomena which Graves (1967) termed psychological acculturation. Psychological acculturation may involve changes in behaviours (e.g., language, customs, foods, music), affect (e.g., emotions related to cultural identity), and cognitions (e.g., fundamental beliefs and values) (Cuellar, Arnold, & Maldonado, 1995). The distinction between group-level and individual-level acculturation is important, because changes experienced by an individual of a given ethnic group may differ from the cultural changes experienced by the group overall (Berry, 1997). The current study focused on acculturation at the individual level, by asking participants to rate their own personal orientations towards their heritage and mainstream cultures.
Acculturation Theory and Measurement

There has been an ongoing debate surrounding the theoretical approach to and the measurement of acculturation (Abe-Kim, Ozazaki, & Goto, 2001; Ryder, Alden, & Paulhus, 2000). Many existing acculturation research studies utilize measures of acculturation which are based on a single proxy indicator, such as language proficiency or preference of the host culture (e.g., Yu, Huang, Schwalberg, Overpeck, & Kogan, 2003), self-reported ethnic identification (e.g., Lee & Chen, 2000), and generation status (e.g., Harker, 2001). Although simple and convenient, this method of measuring acculturation has been criticized for its lack of specificity (Abe-Kim, et al., 2001), as well as its failure to account for individual differences and other factors which might impact acculturation (e.g., premigration exposure to the mainstream culture, willingness to seek language education, residence in ethnic neighbourhoods, frequency of contact with those from the mainstream culture) (Ryder et al., 2000).

In order to measure psychological acculturation to account for individual differences in response to cultural changes, dimensional models of acculturation have been proposed. For example, acculturation has been conceptualized using a unilinear model. Unilinear models implicitly endorse an assimilation perspective of acculturation (Kim & Abreu, 2000; Ryder, et al. 2000). According to this model, acculturation exists on a single dimension, with the identification with the mainstream culture and with the heritage culture positioned on the opposite ends of the same continuum. An inherent problem with this perspective is the model’s inability to represent true biculturation (i.e., an adherence to both the heritage and mainstream cultures) (Kim & Abreu, 2000). Also, the continuum’s midpoint does not differentiate between individuals who adhere to the
values, attitudes, and behaviours of both cultures equally (biculturalism) from those who adhere to neither one of the two cultures (marginalization) (Mavreas, Rebbington, & Der, 1989).

To improve on the weaknesses of the unilinear model, a bilineal model of acculturation has been developed. According to this model, adherence to the heritage and mainstream cultures vary independently (i.e., the two dimensions are orthogonal to each other) (Ryder et al., 2000). In a series of three studies, Ryder et al. (2000) tested a bilineal measure of acculturation (the Vancouver Index of Acculturation, or VIA) against a unilinear measure of acculturation (the Suinn-Lew Asian Self-Identity Acculturation Scale, or SL-ASIA; Suinn, Rickard-Figeuroa, Lew, & Vigil, 1987), in conjunction with personality, self-identity and adjustment variables. The VIA was comprised of two subscales: the Heritage subscale (measuring one’s adherence to one’s culture of origin) and the Mainstream subscale (measuring one’s adherence to the Canadian culture).

Study 1 compared the unilinear model to the bilineal model, in terms of the Big Five personality factors (i.e., agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience). The sample for Study 1 consisted of 164 first and second generation Asian Canadian students (age 17 to 23). After demographic variables (i.e., length of stay and generation status) were controlled, the bilineal acculturation score significantly predicted the five personality factors, while the unilinear acculturation score did not.

In Study 2, the two approaches to measuring acculturation were compared in terms of their abilities to predict self-construals (i.e., interdependent and independent self-construals) and psychological adjustment (i.e., depression, general psychological
adjustment, health maladjustment, social maladjustment, and academic maladjustment). The sample consisted of 150 Chinese Canadian first and second generation students (age 18 to 25). The results of Study 2 supported the contention that the bilineal approach to acculturation provides more information about psychological variables than the unilinear approach. Specifically, the scores on the unilinear measure of acculturation predicted independent self-construals, but not interdependent self-construals. However, the Heritage and Mainstream subscales of the bilineal measure predicted both interdependent and independent self-construals. There were two possible interpretations of the effects of unilinear acculturation on psychological adjustment: 1) acquiring a new cultural identity leads to better psychological adjustment, or 2) losing the original cultural identity leads to better psychological adjustment. However, due to the nature of the unilinear approach, it was impossible to identify the more accurate interpretation. On the other hand, the mainstream component of bilineal acculturation predicted lower levels of depression, reported symptoms, symptom distress, social maladjustment, and academic maladjustment, which supported the first interpretation suggested by the unilinear approach.

Study 3 involved 414 first and second generation students of Chinese, non-Chinese East Asian, and non-English speaking (non-Chinese and East Asian) descent who were between the ages of 18 and 25. However, the unilinear and bilineal approaches to acculturation could only be compared for the Chinese and East Asian groups, since the SL-ASIA only applies to those of Asian descent. This study included various components of interpersonal adjustment, including identity (the relative importance of personal identity versus collective identity), interpersonal problems, social discomfort,
shyness, and *taijin kyofusho* (a Japanese culture-bound syndrome similar to social anxiety). When demographic variables (i.e., length of residence and generation status) were controlled, unilinear acculturation predicted lower levels of interpersonal problems, shyness, and *taijin kyofusho* in the Chinese group. As in Study 1 and Study 2, the bilineal approach again led to a more comprehensive set of findings. For example, a greater orientation towards the mainstream (i.e., Canadian) culture predicted lower levels of interpersonal problems, social anxiety, and shyness in both the Chinese and East Asian groups. Furthermore, a stronger orientation towards the heritage culture predicted more shyness in the Chinese group. Overall, Ryder et al. (2000) found that the bilineal model was a broader and more inclusive acculturation framework, while the unilinear model of acculturation was “incomplete and often misleading” (p. 62).

A large body of research by Berry and his colleagues (see Berry, 1997 for a review) is frequently cited in the literature, and demonstrates a bilineal model of acculturation. Berry (1980, 1984) posits that an individual may adopt an *acculturation strategy* based on one’s attitudes towards two issues: 1) “cultural maintenance” of the native culture (the importance placed on an individual’s indigenous/heritage cultural identity and characteristics), and 2) “contact and participation” with the host culture (the importance placed on becoming involved with other groups). When these issues are considered in combination, four acculturation strategies are possible. Individuals who do not maintain their own cultural identities but identify only with the majority culture are said to be adopting an *assimilation* strategy. Opposite to this approach is the *separation* strategy, in which an individual maintains his or her own cultural identity, but separates him or herself from the majority culture. When a person maintains both his or her
original cultural identity and that of the majority culture, this is known as the integration strategy. Finally, a person is said to endorse a marginalization strategy when he or she identifies with neither his or her culture of origin, nor the majority culture (often due to exclusion or discrimination) (Berry, 1997).

Although the above taxonomy of acculturation strategies proposed by Berry (1980, 1984, 1997) is useful conceptually, grouping acculturating individuals in terms of discrete categories leads to the loss of a large amount of information about each individual. For instance, two individuals who are found to use the same acculturation strategy may still have very different cultural adjustment experiences in the host culture (Ryder et al., 2000). Instead of using categorical groupings, a more comprehensive method of measuring acculturation involves the evaluation of both an individual’s degree of adherence to the ‘Westernized’ or ‘mainstream’ culture (e.g., a person’s cultural affinity towards the Canadian culture) and the ‘traditional’ or ‘heritage’ culture (e.g., a person’s cultural affinity towards an Asian culture), in terms of two separate continuous scores. The Vancouver Index of Acculturation (VIA; Ryder, et al., 2000) is one such measure; it measures acculturation in terms of two continuous scores (the Mainstream score and the Heritage score). The Mainstream score is derived from 10 items which correspond to one’s adherence to the host or majority culture, while the Heritage score is derived from 10 items which correspond to one’s adherence to the culture of origin.

The current study measured dissonant acculturation using parent-child discrepancies in the Mainstream score and the Heritage score. Thus far, research studies on Asian parent-child acculturation discrepancies have exclusively utilized the unilinear model of acculturation, and only two other studies have examined this issue with a
bilineal model (Costigan & Dokis, 2006; Sharir, 2002). Although the VIA was used in Sharir's (2002) study, heritage and mainstream score cut-offs determined the acculturation strategy group (assimilation, integration, separation, marginalization) for each participant. Therefore, although a bilineal measure of acculturation was utilized, the study was limited by the methodological problems inherent in Berry's model of acculturation. Furthermore, parent-child acculturation discrepancies were based on whether or not parents and their children endorsed the same acculturation strategy. Additionally, Costigan and Dokis' (2006) study did not directly examine the association between intergenerational conflicts and psychological distress; their study investigated the degree to which bilineal acculturation discrepancies predicted intergenerational conflict and psychological distress, but did not examine intergenerational conflict as a criterion variable. To the author's knowledge, the current study is the first to investigate the psychological impact of bilineal parent-child acculturation discrepancies and intergenerational conflicts among Asian Canadians.

In summary, the existing literature on the theory and the measurement of acculturation suggests that the construct of acculturation is best conceptualized bidirectionally. Within this framework, two cultural dimensions exist: one dimension represents individuals' orientation towards the mainstream host culture and the other represents individuals' orientation towards the heritage culture of origin. These dimensions are most accurately measured through the use of two continuous scores corresponding to each of the two dimensions. In order to gain a more comprehensive understanding of acculturation in Asian immigrant young adults and their parents and in
view of existing research, the current study will incorporate a bilineal model of acculturation.

Acculturation Outcomes

Research indicates that, in addition to parent-child acculturation discrepancies, individual acculturation is also associated with psychological adjustment (Berry, 1997). Therefore, research on the psychological impact of acculturation will be reviewed in this section.

The Psychological Impact of Acculturation

The process of acculturation may be particularly stressful for immigrants, due to adjustment-related social and psychological problems. Berry (1997) outlines three main points of view on difficulties related to acculturation and suggests that they may be conceptualized in terms of a “sequence or hierarchy of outcomes” (p. 27). First of all, some studies suggest that psychological change is relatively easy, and is a matter of learning new culturally prescribed behaviours (e.g. Brislin, Landis & Brandt, 1983). According to this point of view, psychological adaptation to acculturation involves “culture shedding” (i.e., unlearning components from the immigrant’s culture of origin) and moderate amounts of “culture conflict” (i.e., difficulties arise due to incompatible components of the host culture and the culture of origin) (Berry, 1992). Second, an individual may experience acculturative stress. Acculturative stress includes moderate difficulties (e.g., somatic symptoms of distress), because the acculturating individual may have access to problem appraisal and coping strategies, which may buffer the effects of the acculturative stress. Third, extreme or prolonged acculturative stress may eventually lead to psychological distress and psychological disorders (Berry et al., 1987). The
development of psychological disorders may develop when the stress created by a change in cultural context is greater than the acculturating individuals’ coping resources (Berry, 1997).

Berry et al. (1987) defined acculturative stress as “a reduction in health status (including psychological, somatic and social aspects) of individuals who are undergoing acculturation, and for which there is evidence that these health phenomena are related systematically to acculturation phenomena” (p. 491). Therefore, acculturative stress is a specific kind of stress in response to cultural changes. The nature of acculturative stress makes it distinct from more generalized forms of stress. Empirically, in a study on African American university students, Joiner and Walker (2002) found that the effect of acculturative stress on depression and anxiety persisted, even after the general life stress of the participants was controlled. Acculturative stress may also be present in a wide range of life domains, in the social, attitudinal, familial, and environmental spheres (Padilla, Wagatsuma, & Lindholm, 1984). Within these contexts, acculturative stress may include problems related to language barriers, academic difficulties, financial concerns, and prejudice and discrimination, as well as intrapersonal problems (e.g., one’s sense of personal cultural identity) and interpersonal problems (e.g., family difficulties) (Joiner & Walker, 2002; Lee, Koeske, & Sales, 2004).

High levels of acculturative stress tend to be associated with poorer psychological adjustment and more psychological symptoms, as has been demonstrated in several studies (Gil, et al., 1994; Hovey & King, 1996; Joiner & Walker, 2002; Lee, et. al, 2004; Noh & Avison, 1996; Padilla, et al., 1984; Saldana, 1994; Thoman & Suris, 2004; Yeh, 2003). For example, Noh and Avison (1996) conducted a longitudinal study on a sample
of 609 Korean Canadian adults. A path analysis determined that ‘chronic strain’ (i.e., acculturative stress) had a direct effect on depression. In a sample of 319 Japanese, Chinese, and Korean American junior high and high school students, Yeh (2003) found that acculturative stress predicted overall psychological adjustment (i.e., the Global Severity Index score on the SCLR-90-R) of the participants.

Hence, the experience of cultural transition and acculturation can lead to acculturative stress. Although it is a normal reaction to the pressures of living in a new society, persistent acculturative stress can lead to psychological distress and serious psychological adjustment problems, such as depression and anxiety.

*Acculturation and Psychological Distress*

The literature on the relationship between acculturation and acculturative stress is inconsistent, partly due to the fact that studies have inconsistently utilized demographic proxy indicators, unilinear measures, and bilineal measures of acculturation. However, research indicates that the bilineal model allows for a more comprehensive understanding of acculturation, while other acculturation frameworks are often misleading (Ryder et al., 2000). Hence, the following review of acculturation and psychological distress will be limited to research studies which utilize bilineal measures.

The findings from studies utilizing Berry’s (1980, 1984, 1997) “acculturation strategies” are mixed. Several studies indicate that biculturalism is the healthiest acculturation strategy, while marginalization is the least adaptive strategy (Berry, 1990; Berry, 1997; Farver, Narang, & Bhadha, 2002; Padilla, 1994; Pawliuk, Grizendo, Chan-Yip, Gantous, Mathew, & Nguyen, 1996; Sharir, 2002; Ying, 1995; Zheng, Sang, & Wang, 2003). However, there is no consensus on the relative adaptiveness of
assimilation and separation, the other acculturation strategies in Berry’s model. For example, Farver et al. (2002) found that integrated and assimilated South Asian adolescents had higher levels of self-esteem than separated or marginalized youths. In yet another study on South Asian university students, while separation was linked to lower self-esteem in the first generation group, it was associated with more depression in the second generation group (Abouguendia & Noels, 2003). Separation has also been linked to lower depression (Wong, 2001), more negative affect (Ying, 1995), and higher life satisfaction (Ying, 1995) in Asian American adolescents. It is likely that the adaptiveness of either separating from or fully immersing in the host society depends on a variety of contextual factors, such as the ethnic composition in the host community and the acculturating individual’s culture and society of origin.

Research studies involving other bilineal approaches to acculturation suggest that a greater cultural orientation towards the host culture is associated with more positive psychological adjustment. For instance, Ryder et al. (2000) found that higher scores on the Mainstream subscale of acculturation predicted less psychological distress and symptoms, depression, social anxiety, shyness, and social and academic difficulties in a sample of Chinese Canadian young adults. A study on Vietnamese American adolescents (Nguyen, Messe, & Stollack, 1999) supported these findings. Nguyen et al. (1999) found that involvement in the American culture predicted positive adjustment (i.e., higher self-esteem, lower depression, less psychological distress, better family relationships, and higher grade point average). Involvement in the Vietnamese culture predicted more psychological distress.
Additionally, some studies suggest an indirect relationship between acculturation and psychological adjustment. For example, in a sample of Pakistani, Turkish, African, European, Vietnamese, and other Asian adolescent immigrants living in Norway, researchers found an indirect relationship between cultural competence (i.e., having the skills and knowledge to deal with situations which may arise in host or ethnic culture settings) and mental health (Oppedal, Roysamb, & Sam, 2004). This relationship was mediated by social support and self-esteem; when social support, host culture competence (i.e., competencies pertaining to host culture settings, such as school) and ethnic culture competence (i.e., competencies pertaining to ethnic culture settings, such as the family and local community) were low, the mental health of these adolescents was also low. Additionally, higher host competence had a positive relationship with the mental health of these immigrant adolescents, even when their family support was not available.

Summary

The acculturation literature suggests that acculturation is a complex construct. Previous research has demonstrated that adjusting to a new culture is a stressful process, and often leads to heightened psychological distress (e.g., Yeh, 2003). However, to date, few studies have utilized a bilineal model of acculturation to study the link between acculturation and psychological adjustment with immigrant samples, despite the fact that this model offers a more comprehensive understanding of acculturation than the unilinear model of acculturation (Ryder, et al., 2000). Thus far, bilineal acculturation research suggests that a greater involvement and competence with the host or mainstream culture is associated with more positive psychological adjustment. The current study seeks to verify these findings among Asian Canadian families.
The Present Study

The present study investigated the impact which perceived parent-child acculturation discrepancies of Asian Canadian young adults had on intergenerational conflicts in their families. Furthermore, this study examined the impact which perceived parent-child acculturation discrepancies and intergenerational conflicts had on Asian Canadian young adults' levels of psychological distress.

In the existing literature little attention has been devoted to the experiences of Asian immigrant young adults (e.g., the university-age population) despite the evidence suggesting that these individuals might experience more intergenerational conflict than younger Asian immigrant adolescents (Greenberger & Chen, 1996). The current study investigated Asian Canadian young adults' experiences of intergenerational conflict within the family, in relation to their perceptions of acculturation discrepancies between their parents and themselves. The existing body of immigrant family research indicates that acculturation discrepancies between immigrant children and their parents significantly contributes to intergenerational conflicts within the family (Lee et al., 2000). Furthermore, these conflicts are often associated with heightened psychological distress (Yeh, 2003). Building on previous studies on acculturation discrepancies and intergenerational conflict (e.g., Buki, et al., 2003; Crane, et al., 2005; Dinh et al., 1996; Farver et al., 2002; Lee et al., 2000; Sharir, 2002; Tardif & Geva, 2006), the present study explored the following research questions and hypotheses:

Research Question #1: To what extent do Asian Canadian young adults' perceived acculturation gaps, in terms of differences in Canadian and Asian cultural orientations between themselves and their parents, contribute to their experiences of intergenerational conflict?
Previous studies have suggested that greater discrepancies in language, beliefs, values, and behavioural expectations are due to differential rates of acculturation between immigrant parents and their children (Baptiste, 1993; Chung, 2001; Kwak & Berry, 2001; Phinney et al., 2000; Phinney & Ong, 2002; Fuligni et al. 1999; Uba, 1994). In a number of studies, these acculturation discrepancies have been found to lead to intergenerational conflicts in Asian immigrant families (Crane et al., 2005; Kwak, 2003; Lee et al., 2000). However, these studies were based on unilinear acculturation models, and therefore assumed that adopting the mainstream culture means rejecting one’s heritage culture (Ryder et al., 2000). Very few studies have investigated dissonant acculturation using a bilineal model of acculturation (i.e., examining intergenerational cultural differences with respect to one’s mainstream and heritage cultures separately) (Costigan & Dokis, 2006; Sharir, 2002). In the present study, it was hypothesized that both mainstream (Canadian) acculturation and heritage acculturation discrepancies between themselves and their mothers and fathers would contribute to intergenerational conflicts. In order to address Research Question #1, two parallel hypotheses, one for father-child relationships and one for mother-child relationships, were proposed and analyzed separately:

• Hypothesis #1a: Perceived heritage and mainstream (Canadian) acculturation discrepancies between young adults and their fathers will contribute to the prediction of intergenerational conflicts, above and beyond demographic variables.

• Hypothesis #1b: Perceived heritage and mainstream (Canadian) acculturation discrepancies between young adults and their mothers will contribute to the
prediction of intergenerational conflicts, above and beyond demographic variables.

Research Question #2: To what extent do intergenerational conflict and acculturation discrepancies contribute to Asian Canadian young adults' psychological distress?

The literature indicates that acculturation discrepancies and intergenerational conflicts can lead to psychological distress in Asian immigrant children (Greenberger & Chen, 1996; Lee & Liu, 2001; Lee, et al., 2001). Again, two parallel hypotheses were put forward, one pertaining to father-child relationships and one pertaining to mother-child relationships. It was hypothesized that:

• Hypothesis #2a: Asian Canadian young adults' father-child conflicts and acculturation discrepancies with their fathers will significantly predict their overall psychological distress.

• Hypothesis #2b: Asian Canadian young adults' mother-child conflicts and acculturation discrepancies with their mothers will significantly predict their overall psychological distress.
CHAPTER III
DESIGN AND METHODOLOGY

This chapter focuses on the methodology of the present study and provides an overview of participants, instrumentation, procedure, and design for the study.

Recruitment Procedure

The inclusion criteria for this study were as follows: (1) a participant can be either a foreign- or Canadian-born individual, but must be of Asian descent (i.e., Chinese, Japanese, Korean, Taiwanese, Thai, Vietnamese, Indonesian, Philippino, Laotian, Cambodian, Indonesian, Mongolian, Tibetan, Malaysian, Singaporean, etc.); (2) a participant must be a young adult between the ages of 18 and 25 at the time of the study; and (3) at least one of the participant’s parents must reside in Canada. Criterion three was important because the current study investigated the discrepancies between participants’ and their parents’ acculturation. As such, participants must have been able to rate at least one of their parents on their acculturation experiences resulting from living in Canada.

The recruitment procedure included four methods, in order to maximize the sample size. First, a portion of participants were recruited from the University of Windsor Participant Pool in the Department of Psychology. The Participant Pool offers undergraduate psychology students the opportunity to participate in studies in order to earn bonus credits towards eligible psychology courses of their choice. The researcher was provided with a list of participants who met the study’s eligibility criteria and these participants were sent recruitment e-mails. Participants could also sign up to participate in the study through an online system called Experimentrak. Second, participants were
recruited through other departments at the University of Windsor. The administrative staff of various departments were contacted through e-mail and asked to pass on a recruitment e-mail to their undergraduate and/or graduate students. Third, participants were recruited from the community (e.g., through Asian-Canadian clubs and Asian student organizations from various colleges and universities in Canada). The directors of various cultural clubs and organizations were contacted and were asked to promote the study by posting posters, using bulletin boards, website and newsletter advertisements, as well as forwarding recruitment e-mails to their members. Finally, participants were recruited through the "snowball" technique. Personal contacts of the participants and of the researcher who met the inclusion criteria were e-mailed and invited to participate in the study. They were then asked to forward a recruitment e-mail to their friends and family members. Participants recruited through the other three strategies were also asked to pass on a recruitment e-mail to their own personal contacts. Reminder e-mails were sent six and 16 days after the link to the survey was sent to the participants. With the exception of those recruited from the University of Windsor Participant Pool, all participants had the opportunity to be entered in a draw for one of four $25.00 gift certificates for a book store.

Two hundred and fourteen protocols were submitted to the computer database. Approximately 24% of the protocols belonged to individuals who were recruited through the University of Windsor Participant Pool (n= 52), 5% through University of Windsor departments outside the Department of Psychology (n= 10), 9% through Asian clubs and organizations (n= 20), and 62% through the snowball technique (n= 132). One hundred students from the University of Windsor Participant Pool were sent recruitment e-mails.
and 51 participated, resulting in a response rate of 51%\textsuperscript{1}. Due to the nature of the other three recruitment strategies, there was no way to keep track of the number of participants who received the recruitment e-mail. Thus, the response rates corresponding to these recruitment strategies could not be determined.

Thirty-five of the 214 protocols were deemed invalid and were not included in the data analyses for the following reasons. First, nine cases were invalid because the participants did not meet the eligibility criteria (e.g., their heritage cultures were South or Southwest Asian). Second, five protocols were invalid because participants did not rate their personal Heritage acculturation levels in terms of an East or Southeast Asian heritage culture (e.g., they indicated “Canadian” as their heritage cultures on the Vancouver Index of Acculturation (VIA)); consequently, parent-child heritage acculturation discrepancies could not be calculated for these participants. Third, 15 protocols were invalid because participants did not complete four or more scales on the survey (e.g., most of these participants “dropped out” of the study after completing two or three pages of the survey). Finally, six protocols were invalid because the participants had already completed the survey at an earlier time. In order to determine which protocols were submitted more than once by the same participant, IP Addresses were recorded. Protocols with identical IP addresses were compared on key demographic variables in order to screen for repetition.

\textsuperscript{1} A small proportion of the 100 students contacted filled out the Participant Pool screening questions related to ethnic background incorrectly and were South (e.g., Indian) or Southwest (e.g., Lebanese) Asian. Thus, a proportion of the 100 individuals were not eligible to participate in the first place. The actual response rate for those who met the eligibility criteria was higher than 51%.
Description of the Sample

The final sample consisted of 179 Asian Canadian young adults (23.5% males, 76.5% females) between the ages of 18 and 25 (mean age = 21.0, SD = 2.0). The participants were from various provinces in Canada, including Ontario (57.0%), Alberta (29.6%), British Columbia (6.7%), Saskatchewan (3.9%), Manitoba (1.1%), Quebec (0.6%), New Brunswick (0.6%), and Newfoundland (0.6%). The number of years of post-secondary education completed ranged from zero to seven (Mean = 3.1, SD = 1.8), and the majority of participants reported living with their parents (61.5%). In terms of ethnic background, 70.9% of the sample described themselves as being Chinese, 10.1% Vietnamese, 8.9% Filipino, 2.8% Korean, 1.7% Japanese, 1.7% Cambodian, 0.6% Indonesian, 0.6% Taiwanese, and 0.6% Laotian. Most of the participants were Canadian citizens (95.0%), whereas very few were landed immigrants (3.4%) or refugees (1.7%). The score on the Socioeconomic Status (SES) Index, which was derived by calculating the mean of each participant’s self-reported annual family income and the Canadian average incomes corresponding to his or her parents’ careers and education levels (Statistics Canada, 2003, 2004), was $65,030 (SD = 23,386). Generation status was determined based on where participants were born in relation to where their parents were born, as well as age of arrival. Approximately 11.7% of participants were in the first generation (i.e., born outside of Canada and immigrated at the age of 12 or later), 25.1% were in the 1.5 generation (i.e., born outside of Canada and immigrated before the age of 12), 60.3% were in the second generation (i.e., born in Canada with parents who were born outside of Canada), and 2.8% were in the third or subsequent generations (i.e., born in Canada with parents who were born in Canada). The demographic characteristics of the sample are summarized in Table 1.
Table 1

Demographic Characteristics (N=179)

<table>
<thead>
<tr>
<th>Category</th>
<th>N</th>
<th>%</th>
<th>Mean (SD)</th>
</tr>
</thead>
<tbody>
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<tr>
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<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
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<td></td>
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</tr>
<tr>
<td>18</td>
<td>15</td>
<td>8.4</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>18</td>
<td>10.1</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>28</td>
<td>15.6</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>33</td>
<td>18.4</td>
<td></td>
</tr>
<tr>
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<td>20</td>
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<td></td>
</tr>
<tr>
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<td>26</td>
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<td></td>
</tr>
<tr>
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<td>25</td>
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</tr>
<tr>
<td>25</td>
<td>14</td>
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</tr>
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</tr>
<tr>
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<td>108</td>
<td>60.3</td>
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</tr>
<tr>
<td>3 or later</td>
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<td>1.7</td>
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Table 1 (Continued)

*Demographic Characteristics (N= 179)*

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</tr>
<tr>
<td>Japanese</td>
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<td>1.7</td>
<td></td>
</tr>
<tr>
<td>Cambodian</td>
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</tr>
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</table>

<table>
<thead>
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<th>Household Income</th>
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<th>$65,030 (23,386)</th>
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<tr>
<td>Did not complete high school</td>
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<td>16.3</td>
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<tr>
<td>High school diploma</td>
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<td>16.3</td>
<td></td>
</tr>
<tr>
<td>Some college or university</td>
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<td></td>
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<tr>
<td>College diploma</td>
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<tr>
<td>Did not complete high school</td>
<td>26</td>
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Table 1 (Continued)

Demographic Characteristics ($N=179$)

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<th></th>
<th>$N$</th>
<th>%</th>
<th>Mean (SD)</th>
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<tr>
<td><strong>Mother’s Education (cont’d)</strong></td>
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<td>18</td>
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<tr>
<td>College degree</td>
<td>29</td>
<td>16.3</td>
<td></td>
</tr>
<tr>
<td>Professional degree</td>
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<td>7.3</td>
<td></td>
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<tr>
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<td>0.6</td>
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<td><strong>Living Situation</strong></td>
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</tr>
<tr>
<td>Not with parents</td>
<td>69</td>
<td>38.5</td>
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Instrumentation

Each participant completed a survey, comprised of the following measures: (1) a demographic questionnaire (Appendix A); (2) the Vancouver Index of Acculturation (VIA; Ryder et al., 2000), (3) the Vancouver Index of Acculturation-Father version; (4) the Vancouver Index of Acculturation-Mother version; (5) the Brief Symptom Inventory 18 (BSI-18; Derogatis, 2000); (6) the Asian American Family Conflicts Scale (FCS; Lee et al., 2000)-Father version; and (7) the Asian American Family Conflicts Scale-Mother version. The survey took approximately 30 to 45 minutes to complete.

Demographic Questionnaire

Participants were asked to provide demographic information, including age, gender, education level, country of birth, immigration status, ethnic origin, length of residence, age of arrival, English proficiency, other language proficiency, and living situation (i.e., whether or not they were living with their parents). They were also asked to answer questions regarding their parents' occupations, education levels, countries of birth, and language proficiencies. The majority of the items were presented in a forced-choice format, although those who do not feel any of the options apply to them can answer the open-ended (fill-in-the-blank) response option (see Appendix A). Furthermore, family socioeconomic status was determined through the use of a Socioeconomic Status (SES) Index. The SES Index was based on participants' answers to five questions from the demographic questionnaire: their mothers' education levels, fathers' education levels, household's annual incomes, mothers' occupations, and fathers' occupations. The reported parental education levels and occupations were converted into average annual incomes based on the 2001 Census of Canada (Statistics Canada, 2003,
2004). The final SES Index score was derived by calculating the mean of the reported household income, the income corresponding to parents' education (mother income + father income), and the income corresponding to parents' occupations (mother income + father income).

*Vancouver Index of Acculturation* (VIA; Ryder et al., 2000)

In the current study, the Vancouver Index of Acculturation (Ryder et al., 2000) was chosen because it is a bilinear, empirically validated measure of acculturation, which includes continuous sub-scales, as discussed in the previous section. Additionally, it has been validated using an Asian population with good psychometric properties (Ryder et al., 2000).

The VIA is a self-report measure of acculturation. It assesses respondents' values, social relationships, and traditions (Ryder, et al., 2000). The scale was established on a bidirectional structure, meaning that respondents are asked to rate items on a scale of 1 (*strongly disagree*) to 9 (*strongly agree*) for two subscales (the Heritage subscale and the Mainstream subscales). The items address six issues related to acculturation (e.g. cultural traditions, partner preference), and are presented in pairs based on heritage versus North American (mainstream) cultural preferences (e.g. "I enjoy entertainment (e.g. movies, music) from my heritage culture" and "I enjoy North American entertainment (e.g., music, movies)"). Higher Heritage and/or Mainstream scores indicate a greater tendency to adopt the beliefs and values of the respective culture.

Ryder et al. (2000) conducted a study to demonstrate the reliability and validity of the VIA. In Study 1, a 12-item version of the VIA was initially tested in a sample of 150
first and second generation Chinese undergraduate students in Canada (Ryder et al., 2000). The VIA demonstrated alpha coefficients of .79 and .75 for the Heritage and Mainstream subscales, respectively. Principle components analyses extracted two main factors. The first factor contained the heritage items and explained 30% of the overall variance, while the second factor contained the mainstream items and explained 21% of the overall variance. Consistent with the bidirectional conceptualization of acculturation, the Heritage and Mainstream subscales were not significantly correlated ($r = .09, ns$).

In Study 1, the VIA also demonstrated good concurrent validities with the participants' length of stay in Canada, education, assimilation, and the participants' cultural identification (Ryder et al., 2000). Significant positive correlations were found between the Mainstream subscale and length of stay ($rs = .47, ps < .001$), amount of education in Canada ($rs = .41, ps < .001$), scores on the Suinn-Lew Asian Self-Identity Acculturation Scale (SL-ASIA; Suinn et al., 1987) ($r = .54, p < .001$), and participants' cultural identification ($r = .44, p < .001$). The Heritage subscale was significantly negatively correlated with the SL-ASIA ($r = -.30, p < .001$) and the participants' cultural identification ($r = -.34, p < .001$).

In Study 2 of Ryder et al.'s (2000) study, the VIA was modified, resulting in a 20-item scale. In this most recent version of the VIA, Ryder et al. (2000) demonstrated good internal consistencies for the Heritage subscale ($as = .91, .92, and .91$, respectively). For this subscale the mean interitem correlations were also high ($rs = .52, .53, and .51$). Likewise, internal consistencies and mean interitem correlations for the Mainstream subscale were also high ($as = .89, .85, and .87; rs = .45, .38, and .44$). The principle
components analyses again yielded two factors: one containing heritage items and one containing mainstream items.

The concurrent validity the VIA was again demonstrated in Study 3 (Ryder et al., 2000). The Heritage and Mainstream subscales were correlated in the expected directions for length of stay in Canada, amount of education in Canada, generational status, plans to return to country of origin, Western identification, and mean SL-ASIA scores for all samples. The only exception was that in the East Asian sample, the Heritage subscale was not significantly correlated with Western identification.

As recommended by Ryder et al. (2000), slight wording changes were made to the VIA in the current study; “North American” was replaced with “Canadian” (e.g., “I am interested in having Canadian friends”). For the purposes of the current study, participants were asked to rate their own Canadian acculturation and heritage acculturation (VIA-C, VIA-H), as well as both of their parents’ Canadian and heritage acculturation (VIA-F-C, VIA-F-H, VIA-M-C, VIA-M-H). The test developers granted the researcher permission to re-word items for the mother and father versions of the VIA (e.g., “My mother is interested in having Canadian friends”). Six separate scores of the VIA were obtained: VIA-Heritage (self-assessment of heritage culture identification), VIA-Canadian (self-assessment of Canadian identification), VIA-Father-Heritage (assessment of the father’s heritage culture identification), and VIA-Father-Canadian (assessment of the father’s Canadian identification), VIA-Mother-Heritage (assessment of the mother’s heritage culture identification), and the VIA-Mother-Canadian (assessment of the mother’s Canadian identification). In the present study, internal
consistencies for each of the subscales were high ($\alpha = .81$ (VIA-C), $.86$ (VIA-H), $.87$ (VIA-F-H), $.90$ (VIA-F-C), $.89$ (VIA-M-H), and $.91$ (VIA-M-C)).

Similar subscales were used in a study by Sharir (2002), in which the VIA was administered to 152 first generation Chinese immigrant youth (Self-Chinese, Self-Canadian subscales) and their parents (Parent-Chinese, Parent-Canadian subscales). In Sharir’s (2002) study, the internal consistencies for the four subscales were high ($\alpha = .80$, .85, .81, and .82, respectively), as were the mean inter-item correlations ($r = .43, .49, .45$, and .43, respectively). However, in this study the participants were assigned one of four acculturation strategy groups (assimilation, integration, separation, marginalization), based on mainstream and heritage cut-off scores. By contrast, the present study investigated parent-child acculturation discrepancies using two continuous scores (i.e., the mainstream and heritage scores). Therefore, the current study utilized four discrepancy indices, which were derived by subtracting the parent scores from the young adult scores for the mainstream and heritage dimensions and finding the absolute values of these discrepancy scores. These indices include the Heritage Discrepancy Index-Father (HDI-Father: VIA-Heritage score – VIA-Father-Heritage score), the Heritage Discrepancy Index-Mother (HDI-Mother: VIA-Heritage score - VIA-Mother-Heritage score), the Canadian Discrepancy Index-Father (CDI-Father: VIA-Canadian score – VIA-Father-Canadian score), and the Canadian Discrepancy Index-Mother (CDI-Mother: VIA-Canadian score – VIA-Mother-Canadian score).

*Brief Symptom Inventory-18 (BSI-18; Derogatis, 2000)*

The BSI-18 is a shortened version of the Brief Symptom Inventory (BSI; Derogatis, 1993; Derogatis & Spencer, 1982), which was based on the Symptom
Checklist- 90 (SCL-90; Derogatis, Rickels, & Rock, 1976). The BSI-18 is a self-report screening tool for psychological distress and psychiatric disorders. Respondents are asked to rate the degree to which they have experienced various symptoms in the past week on a five-point Likert scale, from 0 (not at all) to 4 (extremely). The measure is composed of three symptom dimensions, each consisting of six items: Somatization (SOM), Depression (DEP), and Anxiety (ANX). The Somatization subscale is comprised of items related to real or perceived cardiovascular and gastrointestinal dysfunctions, as well as other physiological problems. On the other hand, the Depression subscale focuses on symptoms of clinical depression, such as dysphoria, anhedonia, and suicidal ideation. Finally, items from the Anxiety subscale focus on symptoms such as nervousness, tension, and restlessness. A Global Severity Index (GSI), based on all 18 items, provides an overall score of psychological distress. The raw GSI score is derived by adding up scores for all items, with a maximum possible score of 90. The raw scores can be converted into standardized T scores, by comparing the scores to the norms derived from a community sample of 1,134 adults (Derogatis, 2000). Furthermore, “caseness” can be determined by inspecting respondents’ T scores. Based on community norms, those with T scores higher than 63 on the GSI or on any two of the subscales are considered to be “cases”, and are at risk for psychological distress.

The internal consistency for the BSI-18 is acceptable for the GSI (α= .89). The Chronbach’s alphas for the Somatization, Depression, and Anxiety subscales were .74, .84, and .79, respectively (Derogatis, 2000). Additionally, the original 53-item BSI has been tested with a sample of college students, including 50 Asian international students, and internal consistencies ranged from .62 to .87 (Cheng, Leong, & Geist, 1993).
Although test-retest reliability was not reported for the BSI-18, the test-retest estimates for the original BSI over an unspecified time interval ranged from .68 to .84 on the subscales and the test-retest estimate for the GSI was .90, based on a sample of 60 non-patients (Derogatis, 1993). In the present study, Chronbach’s alpha levels were high for the subscales (α= .83 (SOM), .88 (DEP), .81 (ANX)), and for the GSI (α=.92).

Based on a community sample, the equivalence of the BSI-18 with the SL-90 and its construct validity were demonstrated. There were high correlations between the two measures (r= .91 (SOM), .93 (DEP), .96 (ANX), and .93 (GSI)) (Derogatis, 2000). Derogatis (2000) also reported preliminary evidence of convergent validity between the BSI and the SL-90-R and related MMPI clinical, content, and Tryon cluster scores. Correlations ranged between .40 and .72, and were generally in the expected directions. Results of a principle components analysis on the community sample resulted in a four-factor solution: Somatization, Depression, Anxiety, and Panic. The author reasoned that although panic was the fourth factor, the solution was consistent with his hypotheses, since panic is a type of anxiety disorder, according to the DSM-IV.

*Asian American Family Conflicts Scale* (AAFCS; Lee et al., 2000)

The AAFCS, which measures intergenerational conflict in Asian families, is composed of 10 items. This scale was developed for and validated on a college-age Asian American sample (Lee et al., 2000). Each item consists of two components, reflecting parental and child values and life expectations (e.g. “Your parents tells you what to do with your life, but you want to make your own decisions”), and father and mother versions of scale are also available. For each item, respondents are asked to rate the likelihood of the problem’s occurrence (FCS- Likelihood) on a scale of 1 (almost
never) to 5 (all the time). In addition, respondents rate the seriousness of the intergenerational problem (FCS-Seriousness) on a scale of 1 (not at all) to 5 (extremely). The sum of the FCS-Likelihood and FCS-Seriousness scores forms the FCS-Intensity score. For the purposes of the current study, participants rated their levels of intergenerational conflict with each parent separately.

The FCS-Likelihood and FCS-Seriousness subscales have demonstrated good internal consistencies (α = between .81 and .91) and test-retest reliability (r = between .80 and .85) over a three week interval (Lee et al., 2000; Lee & Lui, 2001). In the present study, internal consistencies were high for the FCS-Likelihood scale (α = .91 (Father) and .91 (Mother)), the FCS-Seriousness scale (α = .91 (Father) and .92 (Mother)), and the FCS-Intensity scale (α = .94 (Father) and .95 (Mother)). The FCS-Likelihood score has also demonstrated convergent validity with perceived child and parental acculturation differences, acculturative stress, and acculturation-related demographic variables (i.e., generation status, language) (Lee et al., 2000). However, the FCS-Seriousness score failed to demonstrate adequate concurrent validity in Lee et al.’s (2000) study. FCS-Seriousness scores were not significantly correlated to the majority of the demographic (e.g., SES) and cultural orientation (e.g., parental Western orientation) variables examined. Moreover, unilineal acculturation gaps did not predict FCS-Seriousness scores, suggesting poor criterion-related validity (i.e., the interaction between parent and child acculturation levels did not predict FCS-Seriousness scores, over and above the main effects of these variables). Lee et al. (2000) also found no significant group differences in FCS-Seriousness scores in terms of gender, ethnicity, generation, or language usage in the home.
In order to determine the concurrent and criterion-related validity of the FCS-Seriousness and FCS-Intensity in the current study, the correlations between the scores on these scales and demographic variables and bilineal acculturation scores were inspected. Several demographic and cultural orientation variables were significantly correlated with the FCS-Seriousness scores in the expected directions. The FCS-Seriousness-Father scores were significantly correlated with higher heritage acculturation scores in fathers ($r = .24, p < .01$) and lower parental English proficiency ($r = -.22, p < .01$). In addition, the FCS-Seriousness-Mother scores were significantly correlated with lower socioeconomic status ($r = .16, p < .05$), lower parental English proficiency ($r = -.26, p < .01$), higher heritage acculturation scores in mothers ($r = .19, p < .05$), and lower Canadian acculturation scores in mothers ($r = -.23, p < .01$). Demographic and cultural orientation variables were also correlated with the FCS-Intensity scores in the expected directions. Lower parental English proficiency ($r = -.21, p < .01$), higher heritage acculturation scores in fathers ($r = .27, p < .01$), and lower Canadian acculturation scores in fathers ($r = -.20, p < .01$) were correlated with FCS-Intensity-Father scores. FCS-Intensity-Mother scores were correlated with lower parental English proficiency ($r = -.26, p < .01$), lower SES ($r = .16, p < .05$), higher heritage acculturation scores in mothers ($r = .22, p < .01$), and lower Canadian acculturation scores in mothers ($r = -.26, p < .01$). Overall, the FCS-Seriousness and FCS-Intensity scores demonstrate good concurrent validity in the present study.

In the present study, the criterion-related validity of the AAFCS was also demonstrated. Using multiple regression analyses, the FCS-Likelihood, -Seriousness, and -Intensity scores were the criterion variables and acculturation discrepancies (represented by the Heritage Discrepancy Index and the Canadian Discrepancy Index)
were the predictor variables. When participants rated conflicts with their fathers, father-child acculturation discrepancies predicted the FCS-Likelihood-Father ($F(2, 174) = 5.74, p < .01$), the FCS-Seriousness-Father ($F(2, 174) = 3.57, p < .01$) and FCS-Intensity-Father scores ($F(2, 174) = 5.14, p < .01$). Furthermore, mother-child acculturation discrepancies predicted the FCS-Likelihood-Mother ($F(2, 174) = 7.41, p < .01$), the FCS-Seriousness-Mother ($F(2, 173) = 5.20, p < .01$), and the FCS-Intensity-Mother scores ($F(2, 173) = 6.62, p < .01$). Thus, although Lee et al. (2000) recommended that only FCS-Likelihood scores should be used in research, the FCS-Seriousness and FCS-Intensity scales were deemed to be valid in the current study. The Intensity scale is a composite of the Likelihood and Seriousness scales and therefore yields a more comprehensive score than the Likelihood or Seriousness scores alone. Since both concurrent and criterion-related validity were demonstrated for the FCS-Intensity scale for the current study’s sample, the FCS-Intensity-Father (FCS-F) and FCS-Intensity-Mother (FCS-M) scores were used in the data analyses.

Although the AAFCS was developed using an Asian American sample, it is believed that it would also be valid in an Asian Canadian sample. A major source of stress for Asian immigrant families relates to discrepancies between the heritage (Asian) and mainstream cultures (Kwak, 2003). The United States and Canada are similar in that they are both predominantly individualistic, while Asian countries are predominantly collectivistic. Due to the similarities between the United States and Canada, it is reasonable to expect that Asian American and Asian Canadian immigrant families will experience similar family difficulties. Furthermore, previous studies on Asian families have been conducted using sub-samples from both Canada and the United States. For
example, Crane et al. (2005) investigated intergenerational conflict among Chinese adolescents and their families in Vancouver, California, and Utah and found no systematic differences in scores on the AAFCS based on location.

Procedure

In consideration of the specific target population and the need for a fairly large sample size (a power analysis indicated that at least 170 participants were needed for the planned statistical analyses), the researcher decided to use a Web-based survey. The Web-based format enabled the researcher to collect data in a short amount of time from a wide range of locations in Canada. Furthermore, young adults generally use computers and the Internet on a daily basis, and are likely to prefer Web-based surveys over traditional surveys due to their convenience and privacy (e.g., participants do not need to book an appointment to fill out the survey and participants can complete the survey at any time). Recent research indicates that Web-based surveys have many additional advantages, and represent a valid method of data collection.

Validity of Web-Based Research Studies

The number of psychological research studies on the Internet has dramatically increased over recent years (Azar, 2000). Nevertheless, there continues to be much debate regarding the validity of Web-based questionnaires and there are pros and cons associated with collecting data on the Internet (Azar, 2000; Gosling, Vazire, Srivastava & John, 2004; Krantz & Dalal, 2000; Pasveer & Ellard, 1998).

The use of Web-based questionnaires offers many benefits for researchers, including large sample sizes, a reduction in data entry errors, and the potential for greater participant honesty and less social desirability because of perceived anonymity and
confidentiality (Gosling et al., 2004; Krantz & Dalal, 2000; Pasveer & Ellard, 1998). Furthermore, the use of Web-based questionnaires is highly time and cost efficient (Azar, 2000; Gosling et al., 2004; Barry, 2001; Pasveer & Ellard, 1998). Web-based surveys also allow for greater access to more specialized populations (e.g., ethnically diverse populations), which may be difficult to access using more traditional methods of data collection (i.e., paper-and-pencil surveys) (Barry, 2001; Krantz & Dalal, 2000; Xu, Shim, Lotz, & Almeida, 2004). Despite these advantages, critics of Web-based studies caution that there are several shortcomings for this method of data collection.

One major criticism of Web-based studies is that participants are often non-random, and unrepresentative of the general population (Azar, 2000; Gosling et al., 2004). However, proponents of Web-based studies argue that although Internet samples are not representative of the general population, they are at least comparable to traditional convenience samples (Azar, 2000; Gosling et al., 2004; Pasveer & Ellard, 1998; Krantz & Dalal, 2000). The samples in majority of psychological studies, regardless of format, are neither random nor representative of the population (Azar, 2000). In reality, many psychological studies use convenience samples, which are often composed of female, Caucasian, middle class, university students. In fact, studies have demonstrated that samples of participants from Web-based studies are often more diverse than participants from traditional studies, in terms of age, education, socioeconomic status, and ethnicity (Azar, 2000; Barry, 2001; Gosling et al., 2004; Krantz & Dalal, 2000).

Critics also argue that the use of Web-based surveys may result in nonresponse and response biases (Gosling et al., 2004; Sax, Gilmartin, Lee, & Hagedorn, 2003). While research suggests that certain segments of the population might be
underrepresented in both Web-based and traditional surveys (e.g., those with a lower SES), Web-based surveys are more advantageous in having more gender balanced samples (Krantz & Dalal, 2000; Sax et al., 2003). The majority of traditional psychological research has been conducted on undergraduate psychology students, who are more likely to be female. Studies have also demonstrated that Web-based surveys are for the most part equivalent to traditional surveys in terms of the psychometric properties and content of responses (Herrero & Meneses, 2006; Mertler & Earley, 2003; Pasveer & Ellard, 1998; Xu, et al., 2004). For example, Pasveer and Ellard (1998) studied self trust using two recruitment methods: a traditional university recruitment method (i.e., recruiting undergraduate psychology students) and an internet recruitment method (i.e., e-mailing psychology researchers, creating links to the survey on the American Psychological Society website and popular search engines). They found that the internal consistencies, inter-item correlations, item means, standard deviations, and factor structures were very similar between the university and internet samples.

Finally, critics of Web-based studies also note that it is difficult to control the study environment base on the use of the Internet. They argue that it is difficult to monitor participants to ensure that they are being honest, that they are not receiving assistance from others, that they are not using reference materials, and that they are not completing the survey more than once (Azar, 2000; Pasveer & Ellard, 1998). However, many similar problems are also present in studies which utilize mail-in and telephone surveys.

Unfortunately, these above mentioned shortcomings cannot be easily remedied. However, steps were taken to keep these problems to a minimum in the current study.
First, the study information pages used for recruitment and the informed consent form asked the participant to complete the questionnaires in a quiet room and emphasized the importance of completing the survey alone and only once. Repeat participants tend to complete Web-based surveys more than once in order to obtain immediate feedback on their scores (participants may think a computer error has occurred when they do not receive feedback on their scores and may repeat the survey) or to receive additional compensation (e.g., additional money, additional entries in a draw to win prizes) (Gosling et al., 2004). However, as recommended by Gosling et al. (2004), the Internet Protocol (IP) addresses of the participants were recorded in the current study. The submissions of participants with identical IP addresses were compared on key demographic variables, and only the first submissions of repeat participants were included in the data set (unless the first submission was incomplete and the second submission was complete, in which case the first submission was deleted). The informed consent form also explained that participants would not receive feedback on their individual scores, and that each participant’s e-mail address would be entered only once in the draw for the gift certificates.

Thus far, few Web-based studies involving Asian immigrant families exist. However, Xu et al. (2004) recently conducted a study on the impact of Asian American young adults’ ethnic identity, parental acculturation, and parental cultural identification on ethnic consumption behaviours. They found no significant differences between the paper-and-pencil and Web-based versions on all four of their questionnaires. In addition, the traditional and Internet samples were similar in terms of various demographic factors (i.e., gender, age, generational status, class standing, ethnic groups, parental income, and
parenthood). Compared to the paper-and-pencil survey, Xu and colleagues (2004) noted that the Web-based survey was much more efficient and effective for collecting data, and recommended the use of Web-based surveys for Asian American college students—similar to that of the current study.

In summary, the benefits of using Web-based surveys in research appear to outweigh the costs. In the past, a major limitation of many cross-cultural studies has been limited access to specific ethnic populations, resulting in small sample sizes. The use of Web-based questionnaires in the current study minimized this problem. Additionally, web-based studies are convenient for participants and quick and cost efficient for researchers (Azar, 2000). Moreover, web-based studies have been shown to be virtually identical to traditional surveys, in terms of psychometric properties and survey responses (Gosling et al., 2004).

**Web-Based Survey Procedure**

In the present study, all participants completed a Web-based survey. Although Participant Pool participants had the option of completing the questionnaires in either a Web-based or traditional paper-and-pencil format, all of these individuals chose to complete the Web survey. Participants were provided with a user identification and password for accessing the Web-based questionnaires. Participants were first presented with a screener questionnaire, which determined whether or not they met the eligibility criteria. They were also asked how they were recruited for the study on the screener questionnaire page. Next, participants were asked to read through an online informed consent page explaining the voluntary nature of their participation and outlining the potential risks of the study. Potential risks included thinking about family conflict, which
may elicit negative feelings for the respondents. They were asked to click a button indicating that they understood the consent page and agreed with the terms outlined. Participants were e-mailed an electronic copy of the informed consent form. Subsequently, the demographic questionnaire, the VIA (Ryder et al., 2000), the VIA-Father, the VIA-Mother, the FCS-Father (Lee et al., 2001), the FCS-Mother and the BSI-18 (Derogatis, 2000) were presented in the order as listed above. Each questionnaire was presented on a separate page, and participants were asked to click the “submit” button in order to move onto the next questionnaire. At the end of the study, participants were prompted to a debriefing page and were thanked for their participation. An electronic copy of the debriefing form was also e-mailed to each participant.

All participants in the survey were anonymous. Consequently, in order to keep track of each participants’ questionnaire protocols, each session was identified based on the date and time a participant submitted the first page (i.e., the screener questionnaire) to the database. Every survey page a participant submitted thereafter was stamped with the information on the date and time participation began. For the purposes of the present study, a protocol was defined as a participant’s answers which were submitted to the computer database for a given questionnaire. A session includes all the protocols stamped with the same date and time. In order to ensure that participants did not complete the survey more than once, each participants’ Internet Protocol (IP) address was recorded. Sessions with identical IP addresses were compared on key demographic variables (e.g., age, birthday, city of residence).
CHAPTER IV
ANALYSIS OF RESULTS

The present study evaluated the psychological impact of acculturation discrepancies and intergenerational conflicts on Asian Canadian young adults. Preliminary analyses were conducted in order to screen the data and to verify the assumptions of the main analyses. In total, four hierarchical multiple regressions were conducted in order to test Hypothesis 1a, Hypothesis 1b, Hypothesis 2a, and Hypothesis 2b. They were then followed by two supplementary analyses to help further clarify the findings.

Preliminary Analyses

The preliminary analyses included inspecting the data for duplicate protocols and missing data. At the same time, the researcher also sought to verify whether or not the assumptions of multiple regression were met. As part of this process, significant outliers were removed from the data set.

Duplicate Protocols

Initially, the data were screened for duplicate protocols and data-entry errors. In order to keep track of participants' protocols while maintaining anonymity, each session was identified based on the date and time a participant electronically submitted the first page of the survey (i.e., the screener questionnaire) to the database. Some participants mistakenly submitted the same questionnaire page more than once in the same session, resulting in duplicate protocols for that questionnaire. In such cases, the data from the second sessions for these participants were deleted. However, if the first submission was blank or incomplete, due to computer/database errors, the first submission was deleted.
Other participants completed the entire survey more than once in more than one session. These participants were identified by comparing the Internet Protocol (IP) addresses corresponding to each session. Sessions with identical IP addresses were compared on key demographic variables (e.g., age, birthday, city), and duplicate protocols were indicated if the demographic variables were identical. In such cases, protocols from the second sessions were not included in the data set. However, if the initial protocol was substantially incomplete, due to computer/database errors, the second protocol was deleted.

*Missing Data*

Missing data was handled in a variety of ways, depending on the scale from which the missing data was found. The SES Index was calculated by finding the mean of each participant’s self-reported annual family income and the average incomes corresponding to his or her parents’ reported occupations and education levels, based on data from Canada’s 2001 Census (Statistics Canada, 2003, 2004). However, some participants did not report parent occupations and education levels. One participant did not report parent education levels, but did report parent occupations and family incomes. In this case, income values associated with education levels were substituted for income values associated with the participant’s parents’ occupations. Four father and three mother occupations were also not reported, and the corresponding income values were replaced by the incomes corresponding to parent education levels. Finally, four father and three mother occupations were vague or were not listed in the Statistics Canada Occupation Table (Statistics Canada, 2004) (e.g., “medicine”, “transportation”). These income
values corresponding to parent occupations were also substituted with the income values corresponding to parent education levels.

Mean item replacement was used to correct for missing data for the remainder of the questionnaires. All questionnaires were comprised of more than one scale, and means for a given participant were used to replace the missing data points on his or her protocol. There were three missing scores on three items of the VIA, five on the VIA-Father, five on the VIA-Mother, two on the BSI-18, three on the FCS-Father, and nine on the FCS-Mother. Furthermore, several participants did not report either their own or their parents’ heritage cultures on the top of the page pertaining to the VIA (10 missing), VIA-Father (7 missing), and VIA-Mother (6 missing). When information on heritage cultures were missing, the researcher extrapolated this data based on Demographic Questionnaire items which asked for participants’ own heritage cultures and the countries in which their parents were born.

Assumptions of Multiple Regression Analyses

The present study’s sample size was adequate (179 cases). However, the cases which were included in each analysis depended on the parent-child relationship being analyzed. After the data were screened and influential observations were removed (see below), 176 cases were included in the father-child analyses and 177 cases were included in the mother-child analyses. The assumptions of absence of multicollinearity and singularity, linearity, and independence of errors were also met for all four analyses. However, the assumptions of absence of outliers, normality, and heteroscedasticity were violated and needed to be further investigated.
Two major influential observations (i.e., multivariate outliers) were identified and removed from some of the analyses. Outliers were identified by inspecting standardized residuals, leverage statistics (i.e., Hat), Cook’s Distance, DFITS, and DFBETA for each hypothesis. One major influential observation was identified based on the DFITS\(^2\) statistic and was not included in the mother analysis of Hypothesis 1 and the father and mother analyses of Hypothesis 2 (DFITS ranged from -6.63 to -10.04). The participant corresponding to this influential observation reported moderate Canadian acculturation discrepancies and high intergenerational conflicts, and a low level of psychological distress. Such a profile suggested a high degree of social desirability on the part of the respondent. One would expect a moderate level of distress to be associated with a high level of parent-child conflict. A second influential observation was also removed from the mother analysis of Hypothesis 2 (DFITS= 5.64). This participant had the maximum scores on both acculturation scales (i.e., scores of 9.0 on the VIA-Self-Heritage and VIA-Self-Canadian), indicating complete acculturation to both her heritage culture and the Canadian culture. Furthermore, the participant rated her mother as being completely acculturated to the heritage culture (VIA-Mother-Heritage score= 9.0) and completely “unacculturated” to the Canadian culture (VIA-Mother-Canadian score= 1.0). This profile is highly improbable, and may be a result of acquiescence or an extreme response style on the part of the respondent.

In terms of the assumption of normality, Tabachnik and Fidell (2001) recommended that researchers inspect frequency distribution plots in studies with large

\(^2\) DFITS values represent the number of standard errors a fitted value will change if an observation is deleted. Stevens (2002) suggests that cases with DFITS values greater than |2| are considered influential observations.
sample sizes (i.e., 125 or more cases) (S.R. Miller, personal communication, December 5, 2006), rather than inspecting skewness and kurtosis values. The distribution plots for heritage acculturation discrepancies (HDI-Father, HDI-Mother), Canadian acculturation discrepancies (CDI-Father, CDI-Mother), intergenerational conflicts (FCS-Int-Father, FCS-Int-Mother), and psychological distress (GSI on the BSI-18) all exhibited slightly negative skewness and slightly positive kurtosis. However, multiple regression analyses are robust to mild violations of the assumption of normality with large sample sizes (Tabachnik & Fidell, 2001), so no adjustments were made to the data.

Finally, standardized residual plots demonstrated slight heteroscedasticity for the mother analysis of Hypothesis 1 and the father and mother analyses of Hypothesis 2. Again, this was not a major concern in the present study, due to the robustness of this assumption with large sample sizes (Tabachnik & Fidell, 2001).

**Correlational Analyses**

Pearson product moment correlations between key variables and each outcome variable were investigated. The sample used to calculate the correlations was slightly different from the sample used for the main analyses (see below). The main father-child analyses (corresponding to Hypotheses 1a and 2a) and mother-child analyses (corresponding to Hypotheses 1b and 2b) involved slightly different samples after the preliminary analyses were conducted. This resulted in a sample size of 176 for the father-child analyses (cases 81, 102, and 181 were deleted from the total sample of 179 cases) and 177 for the mother-child analyses (cases 50 and 81 were deleted from the total sample of 179 cases). For the correlational analyses, 176 cases were included (cases 50, 81, 102, and 181 were deleted). These correlations are presented in Table 2.
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<td>.075</td>
<td>-.122</td>
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<td>.222**</td>
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<td>-.042</td>
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<td>.177*</td>
<td>.166*</td>
<td>.156*</td>
<td>.231**</td>
<td>.492**</td>
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<td>GSId</td>
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<td>.030</td>
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<td>.180*</td>
<td>.300**</td>
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</table>

Table 2

Summary Correlation Table for Acculturation, Intergenerational Conflict and Psychological Distress (N= 175)
Note. VIA-H corresponds to self heritage acculturation, VIA-C to self Canadian acculturation, VIA-F-H to father heritage acculturation, VIA-F-C to father Canadian acculturation, VIA-M-H to mother heritage acculturation, VIA-M-C to mother Canadian acculturation, HDI-F to father-child heritage acculturation discrepancies, HDI-M to mother-child heritage acculturation discrepancies, CDI-F to father-child Canadian acculturation discrepancies, CDI-M to mother-child acculturation discrepancies, FCS-F to father-child conflicts, FCS-M to mother-child conflicts, and GSI to psychological distress.

*a Heritage Discrepancy Index on the Vancouver Index of Acculturation. *b Canadian Discrepancy Index on the Vancouver Index of Acculturation. *c Intensity score on the Asian American Family Conflicts Scale. *d Global Serverity Index Score on the Brief Symptom Inventory-18.

*p <.05. **p <.01
Correlations between the outcome variables and demographic variables were also calculated, but these results are discussed in the context of the hierarchical regression analyses, which are described in the next section.

Father-child conflicts (FCS-F) were significantly correlated with more mother-child conflicts (FCS-M) ($r=0.492, p<0.01$), higher levels of Heritage acculturation in fathers (VIA-F-H) ($r=0.270, p<0.01$), lower levels of Canadian acculturation in fathers (VIA-F-C) ($r=-0.195, p<0.01$), and higher Canadian acculturation discrepancies between fathers and their children (CDI-F) ($r=0.222, p<0.01$) (see Table 2). In other words, the participants who reported more intergenerational conflicts with their fathers were also likely to report more conflicts with their mothers. Participants who reported more father-child conflicts also rated their fathers as identifying more with Asian cultural values and less with Canadian cultural values. Although larger father-child Canadian acculturation discrepancies were significantly associated with more father-child conflicts, heritage acculturation discrepancies were not associated with these conflicts.

Similarly, mother-child conflicts (FCS-M) were significantly correlated with more father-child conflicts (FCS-F) ($r=0.492, p<0.01$), higher levels of heritage acculturation in mothers (VIA-M-H) ($r=0.214, p<0.01$), lower levels of Canadian acculturation in mothers (VIA-M-C) ($r=-0.256, p<0.01$), mother-child heritage acculturation discrepancies (HDI-M) ($r=0.175, p<0.05$) and mother-child Canadian acculturation discrepancies (CDI-M) ($r=0.166, p<0.05$) (see Table 2). Furthermore, mother-child conflicts were correlated with larger father Canadian and larger heritage acculturation discrepancies (CDI-F and HDI-F) ($r=0.177 & 0.156, p<0.05$). Similar to father-child conflicts, those who reported more mother-child conflicts reported more conflict with their fathers and were more likely to
rate their mothers as identifying more with the heritage culture and less with the Canadian culture. In addition, participants who reported more mother-child conflicts tended to report having fathers who identified more with Asian cultures and having greater father-child Heritage and Canadian acculturation discrepancies. This is in contrast to father-child conflicts, which were neither correlated with father acculturation levels nor father-child acculturation discrepancies.

Psychological distress in the Asian Canadian young adults was also significantly correlated with several variables. Participants reported significantly more distress (GSI) when their self Canadian acculturation levels (VIA-C) were lower ($r=-.244, p<.01$), whereas self Heritage acculturation levels (VIA-H) were not associated with distress ($r=.083, p=.291$) (see Table 2). In terms of father-child relationships, lower levels of Canadian acculturation in fathers (VIA-F-C) and higher father-child conflicts (FCS-F) were associated with more distress (BSI) ($r=.186, p<.05$ and $r=.180, p<.05$, respectively). Likewise, lower levels of Canadian acculturation in mothers (VIA-M-C) and higher mother-child conflicts (FCS-M) were related to more distress (GSI) ($r=-.167, p<.05$ and $r=.300, p<.01$, respectively). Parent-child acculturation discrepancies were not found to be significantly correlated with psychological distress. Overall, participants reported being more distressed when they rated themselves and both of their parents as being less oriented towards the Canadian culture. Additionally, participants reported being more distressed when they experienced more conflicts with their parents.

Hierarchical Multiple Regression Analyses

In order to determine which demographic variables would be statistically controlled in each regression, correlations between key continuous or dichotomous categorical
demographic variables (i.e., age, gender, years of post-secondary education, socioeconomic status, generation status, respondents' English proficiency, and parents' English proficiency) and the three dependent variables (i.e., acculturation discrepancies, intergenerational conflict, and psychological distress) were calculated (see Tables 3 and 4). Additionally, in order to verify whether or not there was a significant pattern in the dependent variables based on the non-dichotomous categorical variables (i.e., heritage culture, province, academic area, and immigration status), one-way ANOVAs were conducted. The results showed that none of the one-way ANOVAs were significant.

The demographic variables which were significantly correlated with the outcome variables in each analysis were entered in the first block of the model. That is, the effects of these demographic variables on the outcome variables were controlled in subsequent blocks. The variables which were entered in each block of each hierarchical regression analysis are described below. Four main analyses were conducted, corresponding to each of the study's proposed hypotheses.

**Hypothesis #1a: Perceived heritage and mainstream (Canadian) acculturation discrepancies between young adults and their fathers will contribute to the prediction of father-child conflicts, above and beyond demographic variables.**

The criterion variable for this analysis was father-child conflicts (FCS-Intensity-Father), as is presented in Table 5. Father-child conflicts were significantly correlated with lower parent English proficiency, which was entered in block 1 (see Table 3). The perceived father-child acculturation discrepancies (HDI-Father, CDI-Father) were entered in block 2.
Table 3

**Correlations for Demographic Variables, Acculturation, Acculturation Discrepancies, Intergenerational Conflict, and Psychological Distress in Father-Child Relationships**

<table>
<thead>
<tr>
<th></th>
<th>VIA-H</th>
<th>VIA-C</th>
<th>VIA-F-H</th>
<th>VIA-F-C</th>
<th>HDI-F&lt;sup&gt;a&lt;/sup&gt;</th>
<th>CDI-F&lt;sup&gt;b&lt;/sup&gt;</th>
<th>FCS-F&lt;sup&gt;c&lt;/sup&gt;</th>
<th>GSI&lt;sup&gt;d&lt;/sup&gt;</th>
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<td>-.099</td>
<td>.044</td>
<td>.090</td>
<td>-.041</td>
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<td>-.120</td>
</tr>
<tr>
<td>Gender</td>
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<td>-.013</td>
<td>.041</td>
<td>.061</td>
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<td>-.139</td>
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<td>-.140</td>
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<td>-.084</td>
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<td>-.203**</td>
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<td>-.105</td>
<td>-.238**</td>
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*Note.* VIA-H corresponds to self heritage acculturation, VIA-C to self Canadian acculturation, VIA-F-H to father heritage acculturation, VIA-F-C to father Canadian acculturation, HDI-F to father-child heritage acculturation discrepancies, CDI-F to father-child Canadian acculturation discrepancies, FCS-F to father-child conflicts, and GSI to psychological distress.

<sup>a</sup> Heritage Discrepancy Index on the Vancouver Index of Acculturation. <sup>b</sup> Canadian Discrepancy Index on the Vancouver Index of Acculturation. <sup>c</sup> Intensity score on the Asian American Family Conflicts Scale. <sup>d</sup> Global Serverity Index Score on the Brief Symptom Inventory-18.

*p <.05. **p <.01
Table 4

Correlations for Demographic Variables, Acculturation, Acculturation Discrepancies, Intergenerational Conflict, and Psychological Distress in Mother-Child Relationships

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<tr>
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*Note. VIA-H corresponds to self heritage acculturation, VIA-C to self Canadian acculturation, VIA-M-H to mother heritage acculturation, VIA-M-C to mother Canadian acculturation, HDI-M to mother-child heritage acculturation discrepancies, CDI-M to mother-child acculturation discrepancies, FCS-M to mother-child conflicts, and GSI to psychological distress.

<sup>a</sup> Heritage Discrepancy Index on the Vancouver Index of Acculturation.  
<sup>b</sup> Canadian Discrepancy Index on the Vancouver Index of Acculturation.  
<sup>c</sup> Intensity score on the Asian American Family Conflicts Scale.  
<sup>d</sup> Global Serverity Index Score on the Brief Symptom Inventory-18.

*p < .05.  **p < .01
Table 5

Summary of Hierarchical Regression Analysis for Acculturation Discrepancies

Predicting Father-Child Conflicts (N= 176)

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<td>0.39</td>
<td>-0.20**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>.073**</td>
<td>.035*</td>
</tr>
<tr>
<td>HDI-F&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1.37</td>
<td>1.24</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI-F&lt;sup&gt;b&lt;/sup&gt;</td>
<td>1.97</td>
<td>1.05</td>
<td>0.15</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. HDI-F corresponds to father-child heritage acculturation discrepancies and CDI-F corresponds to father-child Canadian acculturation discrepancies.

<sup>a</sup> Heritage Discrepancy Index on the Vancouver Index of Acculturation.  
<sup>b</sup> Canadian Discrepancy Index on the Vancouver Index of Acculturation.

*p <.05.  **p <.01
The regression model for father-child relationships was significant \(F(3, 172)=4.53, p<.01\) and accounted for 7.3% of the variance in father-child conflict (see Table 5). In block 1, English proficiency was a significant predictor of father-child conflicts \(F(1, 174)=6.99, p<.01\), and accounted for 3.9% of the variance. Taken together, perceived heritage and Canadian acculturation discrepancies between father and child significantly predicted father-child conflicts, after parent English proficiency was controlled, \(F_{\text{change}}(2,172)=3.21, p<.05\). Perceived acculturation discrepancies uniquely accounted for 3.5% of the variance in father-child conflicts. An analysis of the standardized beta weights indicated that father-child heritage and Canadian acculturation discrepancies did not significantly predict father-child conflicts. However, the beta weight corresponding to father-child Canadian acculturation discrepancies approached significance \(p=.06\). Thus, this hypothesis was partially supported.

**Hypothesis #1b: Perceived heritage and mainstream (Canadian) acculturation discrepancies between young adults and their mothers will contribute to the prediction of mother-child conflicts, above and beyond demographic variables.**

As presented in Table 6, criterion variable was mother-child conflicts (FCS-Intensity-Mother). Mother-child conflicts were significantly correlated with age, socioeconomic status, parent and self English proficiency, and years of post-secondary education, and these variables were entered in block 1 of the analysis (see Table 4). Perceived mother-child acculturation discrepancies were entered in block 2 (HDI-Mother, CDI-Mother).

The regression model for mother-child relationships was significant \(F(7, 168)=4.31, p<.01\) and accounted for 15.2% of the variance in mother-child conflicts (see Table
Table 6

Summary of Hierarchical Regression Analysis for Acculturation Discrepancies

Predicting Mother-Child Conflicts (N= 177)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>-1.52</td>
<td>1.17</td>
<td>-0.17</td>
<td>.102**</td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td>-1.6E-005</td>
<td>0.00</td>
<td>-0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Parent)</td>
<td>-1.09</td>
<td>0.45</td>
<td>-0.21*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Self)</td>
<td>-1.87</td>
<td>1.18</td>
<td>-0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Education</td>
<td>0.19</td>
<td>1.34</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.152**</td>
</tr>
<tr>
<td>HDI-Ma</td>
<td>2.58</td>
<td>1.11</td>
<td>0.17*</td>
<td>.050**</td>
<td></td>
</tr>
<tr>
<td>CDI-Mb</td>
<td>1.59</td>
<td>1.08</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. HDI-M corresponds to mother-child heritage acculturation discrepancies and CDI-M corresponds to mother-child acculturation discrepancies.

*a Heritage Discrepancy Index on the Vancouver Index of Acculturation. b Canadian Discrepancy Index on the Vancouver Index of Acculturation.

*p <.05. **p<.01
6). Demographic variables accounted for 10.2% of the variance in mother-child conflicts, \( F(5,170) = 3.88, p<.01 \). Among these variables, parent English proficiency was the only significant demographic predictor of mother-child conflicts \( (p<.05) \) in block 1; lower parent English proficiency was associated with more conflicts. Perceived mother-child acculturation discrepancies accounted for a significant amount of variance in mother-child conflicts, over and above the effects of demographic variables, \( F_{change}(2,168)= 4.92, \ p<.01 \). Five percent of the variance in mother-child conflicts was accounted for by perceived acculturation discrepancies between mothers and their children.

Inspection of the standardized beta weights revealed that the perceived heritage discrepancy was a significant predictor of mother-child conflicts \( (p<.05) \), while the perceived Canadian discrepancy was not \( (p=.14) \). In partial support of this hypothesis, larger perceived heritage acculturation discrepancies with mothers predicted a greater intensity of mother-child conflicts.

*Hypothesis #2a: Asian Canadian young adults' intergenerational conflicts and acculturation discrepancies with their fathers will significantly predict their overall psychological distress.*

In Table 7, the criterion variable for this analysis was participants' self-reported psychological distress (GSI score on the BSI-18). Parent and child English proficiency and years of post-secondary education were entered in the first block of the regression, since they were significantly correlated with psychological distress (see Table 3). Father-child conflict (FCS-Father) was entered in the second block, followed by father-child acculturation discrepancies (HDI-Father, CDI-Father) in the third block.
Table 7

Summary of Hierarchical Regression Analysis for Demographic Variables, Father-Child Conflict, and Father-Child Acculturation Discrepancies Predicting Psychological Distress (N=176)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td>.142**</td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Parent)</td>
<td>-0.81</td>
<td>0.23</td>
<td>-0.26***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Self)</td>
<td>-1.78</td>
<td>0.67</td>
<td>-2.65**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Education</td>
<td>-0.73</td>
<td>0.46</td>
<td>-0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>.151**</td>
<td>0.009</td>
</tr>
<tr>
<td>FCS-Fa</td>
<td>0.60</td>
<td>0.04</td>
<td>0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td>.154**</td>
<td>0.003</td>
</tr>
<tr>
<td>HDI-Fb</td>
<td>-0.36</td>
<td>0.74</td>
<td>-0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI-Fc</td>
<td>-0.24</td>
<td>0.62</td>
<td>-0.30</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. FCS-F corresponds to father-child conflict, HDI-F to father-child heritage acculturation discrepancies, and CDI-F to father-child Canadian acculturation discrepancies.

*a Intensity score on the Asian American Family Conflicts Scale. b Heritage Discrepancy Index on the Vancouver Index of Acculturation. c Canadian Discrepancy Index on the Vancouver Index of Acculturation.

*p < .05. **p < .01. ***p < .001
Overall, the regression model accounted for 15.4% of the variance in psychological distress, \( F(6, 169) = 5.13, p < .001 \) (Table 7). The demographic variables accounted for 14.2% of the variance in psychological distress, \( F(3,172) = 9.50, p < .001 \). Lower parent and self English proficiency predicted distress \( (p < .001 \) and .01, respectively). The results from block 2 indicated that father-child conflict was not a significant predictor of distress, \( F_{\text{change}}(1, 171) = 1.88, p = .17 \). Moreover, neither perceived heritage nor Canadian acculturation discrepancies between fathers and their children were significant predictors of distress, \( F_{\text{change}}(2, 169) = .26, p = .77 \). Thus, this hypothesis was not supported.

**Hypothesis #2b: Asian Canadian young adults’ intergenerational conflicts and acculturation discrepancies with their mothers will significantly predict their overall psychological distress.**

In Table 8, the criterion variable for this analysis was psychological distress. Significant correlates of psychological distress for this analysis included parent and child English proficiency, years of post-secondary education, and generation status (see Table 4). These demographic variables were entered in block 1 of the regression, followed by mother-child conflict (FCS-Mother) in block 2 and mother-child heritage and Canadian acculturation discrepancies in block 3 (HDI-Mother, CDI-Mother).

The regression model was significant \( (F(7, 169) = 6.04, p < .001) \) and accounted for 20.0% of the variance in psychological distress (see Table 8). Demographic variables accounted for 14.4% of the variance in distress, \( F(4,172) = 7.22, p < .001 \). Of these variables, parent and self English proficiency were significant predictors of distress \( (p < .01 \) and .05, respectively); lower English proficiency was associated with more
Table 8

Summary of Hierarchical Regression Analysis for Demographic Variables, Mother-Child Conflict, and Mother-Child Acculturation Discrepancies Predicting Psychological Distress (N= 177)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
<th>AR²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Step 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.144**</td>
</tr>
<tr>
<td>English Proficiency (Parent)</td>
<td>-0.83</td>
<td>0.23</td>
<td>-0.26**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Self)</td>
<td>-1.80</td>
<td>0.71</td>
<td>-0.19*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Education</td>
<td>-0.68</td>
<td>0.46</td>
<td>-0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation</td>
<td>-0.20</td>
<td>2.23</td>
<td>0.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 2</td>
<td></td>
<td></td>
<td></td>
<td>.184**</td>
<td>.040**</td>
</tr>
<tr>
<td>FCS-M⁴</td>
<td>0.13</td>
<td>0.05</td>
<td>0.21**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 3</td>
<td></td>
<td></td>
<td></td>
<td>.200**</td>
<td>.016</td>
</tr>
<tr>
<td>HDI-M⁵</td>
<td>-1.10</td>
<td>0.65</td>
<td>-0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDI-M⁶</td>
<td>-0.25</td>
<td>0.59</td>
<td>-0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. FCS-M corresponds to mother-child conflicts, HDI-M to mother-child heritage acculturation discrepancies, and CDI-M to mother-child acculturation discrepancies.

⁴ Intensity score on the Asian American Family Conflicts Scale. ⁵ Heritage Discrepancy Index on the Vancouver Index of Acculturation. ⁶ Canadian Discrepancy Index on the Vancouver Index of Acculturation.

*p < .05. **p < .01
distress. Furthermore, greater intensities of mother-child conflicts predicted more psychological distress, over and above the effects of demographic variables, $F_{\text{change}}(1, 171) = 8.48, p < .01$. These conflicts accounted for 4.0% of the variance in psychological distress. Once demographic variables and mother-child conflicts were controlled, perceived mother-child Heritage and Canadian acculturation discrepancies did not predict psychological distress, $F_{\text{change}}(2, 169) = 1.69, p = .19$. Thus, this hypothesis was partially supported in that mother-child conflicts did predict the young adults’ psychological distress.

**Supplementary Analyses**

The fact that the participants’ and their parents’ Canadian acculturation levels, rather than parent-child acculturation discrepancies, were shown to be significantly correlated with psychological distress (see Table 2) prompted additional, supplementary analyses. Two additional analyses, corresponding to both father-child and mother-child relationships, were conducted in order to investigate the impact of mother, father, and self acculturation levels on intergenerational conflicts and psychological distress.

**Father-Child Relationships**

As shown in Table 9, psychological distress was the criterion variable in this analysis. Similar to the primary analyses, demographic variables which were significantly correlated with psychological distress (see Table 3) were entered in block 1; these variables included parent and child English proficiency and years of post-secondary education. Father-child conflict (FCS-Father) was entered in block 2 and self and father acculturation levels were entered in block 3 (VIA-Heritage, VIA-Canadian, VIA-Father-Heritage, VIA-Father-Canadian).
Table 9

Summary of Hierarchical Regression Analysis for Demographic Variables, Father-Child Conflict, and Acculturation Levels Predicting Psychological Distress (N= 176)

<table>
<thead>
<tr>
<th>Variable</th>
<th>$B$</th>
<th>$SE_B$</th>
<th>$\beta$</th>
<th>$R^2$</th>
<th>$\Delta R^2$</th>
</tr>
</thead>
<tbody>
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<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Parent)</td>
<td>-0.75</td>
<td>0.23</td>
<td>-0.24**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Self)</td>
<td>-0.85</td>
<td>0.58</td>
<td>-0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Education</td>
<td>-0.72</td>
<td>0.46</td>
<td>-0.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FCS-F$^a$</td>
<td>0.06</td>
<td>0.05</td>
<td>0.10</td>
<td></td>
<td>.118**</td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.170***</td>
</tr>
<tr>
<td>VIA-H</td>
<td>0.71</td>
<td>0.68</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA-C</td>
<td>-2.13</td>
<td>0.94</td>
<td>-0.18*</td>
<td></td>
<td>.052*</td>
</tr>
<tr>
<td>VIA-F-H</td>
<td>-1.32</td>
<td>0.94</td>
<td>-0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA-F-C</td>
<td>-0.42</td>
<td>0.61</td>
<td>-0.06</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. FCS-F corresponds to father-child conflicts, VIA-H to self heritage acculturation, VIA-C to self Canadian acculturation, VIA-F-H to father heritage acculturation, and VIA-F-C to father Canadian acculturation.

$^a$ Intensity score on the Asian American Family Conflicts Scale.

*p <.05. **p <.01. ***p <.001
Seventeen percent of the variance in psychological distress was accounted for by the regression model, which was significant, $F(8, 168) = 4.31, p<.001$ (Table 9). In block 1, 10.8% of the variance in psychological distress was accounted for by demographic variables, and lower parent English proficiency was associated with more distress ($p<.01$). As was demonstrated in the previous analysis, father-child conflict did not predict psychological distress in block 2, $F_{\text{change}}(1, 172) = 1.97, p = .16$. However, block 3 was significant, $F_{\text{change}}(4, 168) = 2.64, p<.05$. Together, self and perceived father acculturation levels accounted for 5.2% of the variance in psychological distress. Inspection of the standardized beta weights indicated that lower self Canadian acculturation levels predicted more psychological distress ($p<.05$), whereas self Heritage acculturation levels did not ($p = .16$). Furthermore, fathers' Canadian and heritage acculturation levels were not significant predictors ($p = .50$ and .16, respectively).

*Mother-Child Relationships*

Psychological distress was the criterion variable, as is presented in Table 10. Parent and child English proficiency, years of post-secondary education, and generation were entered in block 1, followed by mother-child conflict in block 2 (FCS-Mother) and self and mother acculturation levels in block 3 (VIA-Heritage, VIA-Canadian, VIA-Mother-Heritage, VIA-Mother-Canadian).

The regression model was significant ($F(9, 168) = 4.77, p<.001$) and accounted for 20.3% of the variance in psychological distress (Table 10). Eleven percent of the variance in psychological distress was accounted for by the demographic variables entered in block 1, $F(4,173)= 5.33, p<.001$. Lower parent English proficiency predicted more distress ($p<.01$). Mother-child conflict was a significant predictor of psychological
Table 10

Summary of Hierarchical Regression Analysis for Demographic Variables, Mother-Child Conflict, and Acculturation Levels Predicting Psychological Distress (N = 177)

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE B</th>
<th>β</th>
<th>R²</th>
<th>ΔR²</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1</strong></td>
<td></td>
<td></td>
<td></td>
<td>.110***</td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Parent)</td>
<td>-0.76</td>
<td>0.23</td>
<td>-0.24**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English Proficiency (Self)</td>
<td>-0.82</td>
<td>0.62</td>
<td>-0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years Education</td>
<td>-0.67</td>
<td>0.46</td>
<td>-0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generation</td>
<td>-0.58</td>
<td>2.26</td>
<td>-0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 2</strong></td>
<td></td>
<td></td>
<td></td>
<td>.155**</td>
<td>.045**</td>
</tr>
<tr>
<td>FCS-Mothera</td>
<td>0.14</td>
<td>0.05</td>
<td>0.22**</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Step 3</strong></td>
<td></td>
<td></td>
<td></td>
<td>.233**</td>
<td>.049*</td>
</tr>
<tr>
<td>VIA-H</td>
<td>0.68</td>
<td>0.65</td>
<td>0.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA-C</td>
<td>-2.40</td>
<td>0.94</td>
<td>-0.19*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA-M-H</td>
<td>-1.05</td>
<td>0.86</td>
<td>-0.10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VIA-M-C</td>
<td>0.23</td>
<td>0.59</td>
<td>0.03</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. FCS-M corresponds to mother-child conflicts VIA-H to self heritage acculturation, VIA-C to self Canadian acculturation, VIA-M-H to mother heritage acculturation, and VIA-M-C to mother Canadian acculturation.

a Intensity score on the Asian American Family Conflicts Scale.

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

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distress, over and above the effects of the demographic variables \( F_{\text{change}}(1, 172) = 9.19, p < .01 \); 4.5% of the variance in distress was uniquely accounted for by mother-child conflict. Together, self and mother acculturation levels accounted for 4.9% of the variance in psychological distress, and contributed significantly to the prediction of distress, over and above the effects of demographic variables and mother-child conflict, \( F_{\text{change}}(4, 168) = 2.56, p < .05 \). As with fathers, inspection of the standardized beta weights revealed that self Canadian acculturation was the only significant predictor of psychological distress \( p < .05 \); participants who reported lower Canadian acculturation levels tended to be more distressed. Self heritage acculturation \( p = .30 \), mothers’ Canadian acculturation \( p = .70 \), and mothers’ heritage acculturation \( p = .22 \) did not predict psychological distress.

**Summary**

The results of the present study revealed that parent-child acculturation discrepancies predicted intergenerational conflicts. However, different types of acculturation discrepancies (heritage versus Canadian) differentially predicted intergenerational conflicts for mothers versus fathers. Heritage discrepancies predicted conflicts with mothers. Canadian acculturation discrepancies were not significant predictors of conflicts with fathers, although the results approached significance.

The degree to which intergenerational conflicts impacted psychological distress in Asian Canadian young adults also depended on the intergenerational relationship. Although father-child conflicts were significantly correlated with psychological distress in the positive direction, these conflicts did not predict distress after years of education and parent/child English proficiency were controlled in the regresional analysis.
Mother-child conflicts were also significantly correlated with psychological distress in the positive direction. Furthermore, mother-child conflicts significantly predicted psychological distress, over and above the demographic variables. After demographic variables and intergenerational conflicts were controlled, neither heritage nor Canadian acculturation discrepancies predicted psychological distress in both parent-child relationships.

Finally, although parent-child acculturation discrepancies predicted intergenerational conflict, they did not predict psychological distress in Asian Canadian young adults. Moreover, parents' perceived heritage and Canadian acculturation levels and self heritage acculturation were not significant predictors of psychological distress. Nonetheless, lower self Canadian acculturation levels did predict more psychological distress, even after demographic variables and intergenerational conflict were controlled.
CHAPTER V
DISCUSSION

Purpose of the Study

The purpose of the present study was to investigate several variables which have been suggested in the literature as being relevant to Asian Canadian immigrant families, including acculturation, parent-child acculturation discrepancies, intergenerational conflicts, and psychological distress. One of the main research questions focused on the impact of parent-child acculturation discrepancies on intergenerational conflicts. In this study self and perceived parent acculturation were investigated by adopting Ryder et al.'s (2000) bilineal acculturation framework, in which cultural orientation towards the heritage and mainstream cultures exists on separate continuums. As such, acculturation discrepancies were derived from heritage and Canadian acculturation levels in mothers, fathers, and their children. This study was one of the first studies to investigate intergenerational acculturation discrepancies from a bilinear framework. The second research question was concerned with the impact of acculturation discrepancies and intergenerational conflicts on Asian Canadian young adults' psychological distress. Finally, the present study explored the effects of self and parent heritage and Canadian acculturation levels on psychological distress in Asian Canadian young adults.

Summary and Interpretation of the Findings

Impact of Acculturation Discrepancies on Intergenerational Conflicts

In the present study, it was hypothesized that greater heritage and Canadian acculturation discrepancies would be associated with more father-child and mother-child conflicts. This hypothesis was partially supported; the mother-child heritage discrepancy
predicted more mother-child conflicts. On the other hand, the father-child Canadian acculturation discrepancy was not a significant predictor of father-child conflicts. Nonetheless, the analysis approached significance (\(p=.06\)), suggesting some possible relationship. The results of the present study are difficult to compare to those of previous studies, since the majority have not analyzed acculturation discrepancies separately for each parent, as was the case in the present study. Participants in previous studies were asked to rate the acculturation level of only one parent (e.g., Tardif & Geva, 2006) or both parents together without differentiation (e.g., Farver et al., 2002; Lee et al., 2000). Furthermore, the majority of these research studies involved unilineal acculturation discrepancies, as opposed to bilineal acculturation discrepancies. These studies suggested that greater acculturation discrepancies are associated with more intergenerational conflicts (Farver, et al., 2002; Lee, et al., 2000; Tardif & Geva, 2006). The present study extended these previous findings by specifying the type of parent-child acculturation discrepancy (i.e., heritage or Canadian) and the direction of intergenerational conflict (i.e., with mothers or with fathers).

Although the majority of intergenerational conflict studies have not investigated father-child and mother-child conflicts separately, one exception is a recent study by Costigan and Dokis (2006). In a sample of 91 Chinese Canadian early adolescents and their parents, Costigan and Dokis found that Chinese acculturation discrepancies with both parents predicted parent-child conflicts, whereas Canadian acculturation discrepancies did not. Mother-child discrepancies in Chinese language and Chinese media usage and father-child discrepancies in Chinese values predicted conflicts. These results are in contrast to the results of the present study, which linked mother-child Asian
acculturation discrepancies and father-child Canadian acculturation discrepancies to intergenerational conflicts. However, it should be noted that Costigan and Dokis used two informants: Chinese Canadian adolescents and their parents. Each informant rated their own acculturation levels, yielding actual acculturation discrepancies, as opposed to perceived acculturation discrepancies (which were used in the present study). It may be the case that perceived parent-child acculturation discrepancies do not match exactly with actual acculturation discrepancies, resulting in different findings between Costigan and Dokis' study and the present investigation.

Furthermore, the children who participated in Costigan and Dokis' study were early adolescents (aged 9 to 15), whereas participants in the current study were young adults (aged 18 to 25). The differences between the findings in Costigan and Dokis' study and the present study may reflect changes in acculturation and the parent-child relationship as an immigrant child moves from childhood to adolescence and early adulthood. For instance, research suggests that immigrant children tend to become more oriented to the mainstream culture as they mature (Nguyen & Williams, 1989; Ying, Coombs, & Lee, 1999), which is probably due in part to a longer length of residency and increasing peer influences as immigrant children get older. In addition, Asian immigrant children tend to begin seeking autonomy in late adolescence and early adulthood (Greenberger & Chen, 1996), leading to an increase in “Canadian behaviours” (i.e., engaging in more independent behaviours) in late adolescence and early adulthood. As demonstrated in Costigan and Dokis' (2006) study, Asian acculturation discrepancies may be important contributors to father-child conflicts in early adolescence. However, because certain Canadian behaviours involving becoming more independent may
increase in late adolescence and young adulthood, Canadian acculturation discrepancies may have an increasingly important influence on father-child conflicts. This is plausible, given that Asian fathers traditionally assume a disciplinary role in the family (Uba, 1994). Further studies are needed to clarify the developmental trajectory of intergenerational conflicts in Asian children.

The results of the present study can also be interpreted in terms of traditional Asian parenting roles and gender roles. Asian mothers tend to be the primary caregivers in the family (Chao & Tseng, 2002; Ho, 1987; Uba, 1994), and are often concerned with the emotional well-being of their children (Kim & Wong, 2002; Uba, 1994). In order to foster their children’s emotional development, many Asian mothers emphasize ethnic socialization and cultural value transmission in parenting their children (Kallivayalil, 2004; Killian & Hegtvedt, 2003; Maiter & George, 2003). This may explain why mother-child heritage acculturation discrepancies predicted mother-child conflicts.

Furthermore, the gender composition of the present study’s sample (77% female) may have amplified the strength of the relationship between Asian acculturation discrepancies and mother-child conflicts. The traditional role of Asian mothers includes raising their daughters to be obedient wives and self-sacrificing mothers (Kim & Wong, 2002). This reflects traditional patriarchal values, which are more strongly emphasized in Asian cultures than in Western cultures. Western cultures tend to emphasize values related to the gender equality and the independence of women. As such, traditional Asian values tend to be less advantageous for women than for men, making it more difficult for Asian Canadian young women to accept these values (Nguyen & Williams, 1989; Tang & Dion, 1999). Research has demonstrated that female Asian American young adults
conflict with their parents regarding dating and marriage more than their male counterparts (Chung, 2001; Dion & Dion, 2001; DuongTran et al., 1996). Moreover, discrepant values related to gender roles can be detrimental to the mother-daughter relationship. For example, in a sample of 204 Vietnamese Australian adolescents and young adults, perceived parent-child discrepancies in independence values were associated with mother-daughter conflicts but not father-daughter conflicts (Rosenthal, Ranieri, & Kimidis, 1996). Since Asian immigrant mothers are traditionally responsible for preparing their daughters for marriage, they may become frustrated if their daughters are more independent, and may take this as a sign that their daughters will not attract suitable partners or raise good children.

Although larger father-child Canadian acculturation discrepancies did not significantly predict father-child conflicts, traditional Asian parenting and gender roles may also explain why the association approached significance. Father-child conflicts may occur because traditional Asian fathers generally assume the role of the disciplinarian, and are responsible for their children's achievements and proper behaviour (Chao & Tseng, 2002; Kim & Wong, 2002; Okagaki & Bojczyk, 2002; Uba, 1994). Asian fathers may become concerned if their children begin to exhibit behaviours which are developmentally normal for individuals during young adulthood in the Canadian culture, but are threatening to traditional Asian values. For example, many young adults in North America attend college/university and begin attending social events and staying out late at night. If Asian Canadian young adults engage in these behaviours, their fathers might construe these behaviours as being disrespectful and shameful to the family, leading to conflicts. This is especially the case for daughters, for whom
behavioural expectations tend to be more rigid (Chao & Tseng, 2002; Chung, 2001; Dion & Dion, 2001; Rumbaut, 1996).

Notably, the mother-child acculturation discrepancy was a significant predictor of intergenerational conflicts, whereas the father-child acculturation discrepancy was not. This may reflect the fact that traditional Asian mothers tend to be more present in the home and more emotionally involved in their children’s lives than are traditional Asian fathers (Chao & Tseng, 2002; Uba, 1994). Since mothers may interact with their children more, there might be a greater opportunity for mothers’ Asian and children’s Canadian values to clash, leading to conflicts.

Overall, the present study’s findings with mother-child acculturation discrepancies are consistent with the current literature indicating that greater acculturation discrepancies are associated with more intergenerational conflicts (Farver et al., 2002; Lee, et al., 2000; Tardif & Geva, 2006). However, in terms of father-child acculturation discrepancies, the results were not consistent with the existing literature. These results highlight the importance of investigating bilineal acculturation discrepancies and the intergenerational relationship with each parent separately, as opposed to studying parents without differentiating between fathers and mothers. Additionally, these findings suggest that culturally defined parenting roles may contribute to the differential relationship between acculturation discrepancies and intergenerational conflicts, especially among individuals from cultures with more distinct gender roles.

Psychological Impact of Intergenerational Conflicts and Acculturation Discrepancies

The present study hypothesized that greater Canadian and heritage acculturation discrepancies and more father-/mother-child conflicts would lead to more psychological
distress. This hypothesis was partially supported in the present study. After demographic variables were controlled, mother-child conflicts predicted psychological distress, whereas father-child conflicts did not. However, contrary to the present study’s hypotheses, neither father nor mother acculturation discrepancies predicted psychological distress.

Previous studies have demonstrated a positive relationship between parent-child relationship difficulties and psychological distress (Wong, 2001), but have not compared the relative psychological impact of father-child versus mother-child conflicts. However, the Asian family literature offers some interpretations for the present study’s finding that Asian mother-child conflicts were associated with more distress but not Asian father-child conflicts. First, Asian mother-child relationships tend to be emotionally closer than father-child relationships (Chao & Tseng, 2002; Uba, 1994). Conflicts with mothers may therefore change the interpersonal dynamics of the family to a greater extent than do conflict with fathers, resulting in a greater disruption of family harmony. The maintenance of family harmony is particularly important among Asian families (Uba, 1994). Second, Asian mothers often play an important role in maintaining their children’s emotional well-being (Uba, 1994). Thus, a damaged mother-child relationship may result in a major loss of interpersonal support for the child. Research has shown that social support is an important protective factor for psychological distress among Asian immigrants (Harker, 2001; Lee et al., 2004; Lee et al., 2005).

Third, maternal support is an important predictor of psychological well-being among young women (Ge, Lorenz, Conger, Elder, & Simons, 1994; Liebkind & Jasinskaja-Lahti, 2000). Since the majority of the present study’s sample was female
(77%), the psychological effects of a disruption in the mother-child relationship may have been particularly pronounced. Moreover, Asian children tend to have more interpersonal contact with their mothers because Asian fathers tend to be more physically and emotionally distant from their children (Chao & Tseng, 2002; Kim & Wong, 2002; Uba, 1994). Since Asian Canadian children tend to have less direct interactions with their fathers, the conflicts with fathers might be viewed as being less immediate concerns for Asian Canadian young adults. By contrast, young adults who experience conflicts with their mothers may find it more difficult to remove themselves from the conflict because they see or interact with their mothers more frequently.

Despite the fact that greater parent-child acculturation discrepancies were associated with more intergenerational conflict and that more intergenerational conflict was associated with more psychological distress, acculturation discrepancies were not found to be predictive of psychological distress after intergenerational conflicts were controlled. These findings suggest that the experience of distress for Asian Canadian young adults may not directly link to parent-child acculturation discrepancies per se. This finding is consistent with Sam and Virta’s (2003) study, in which intergenerational value discrepancies were not associated with psychological adjustment among Vietnamese, Pakistani, and Turkish immigrant adolescents and their parents who lived in Norway and Sweden. It may be the case that intergenerational conflicts in general are distressing, and that Asian immigrant young adults are no more vulnerable to family conflict-related distress than other immigrant and non-immigrant young adults. Some researchers have suggested that Asian immigrants may be resilient to distress associated with intergenerational conflict due to protective factors such as social support and a
motivation to set aside disagreements in order to adjust to a new country (Kwak, 2003; Lee et al., 2005; Su, Lee, & Vang, 2005).

By contrast, other studies have demonstrated a positive relationship between acculturation discrepancies and psychological adjustment problems (e.g., Costigan & Dokis, 2006; Crane et al., 2005; Farver et al., 2002; Lee & Chen, 2000). However, it is important to note that the studies demonstrating a significant relationship between acculturation discrepancies and psychological distress used acculturation measures which incorporated parent and child language usage. Conversely, parent English proficiency was controlled in present study and the acculturation measure used did not include a language component. Likewise, Sam and Virta's (2003) study focused exclusively on parent-child value discrepancies. Therefore, the non-significant findings in the present study and Sam and Virta's study may point towards the importance of using a multidimensional measure of acculturation which includes language as a key component. Parent-child language discrepancies may be more important predictors of distress in Asian immigrant children than discrepancies for other aspects of acculturation. For example, larger language discrepancies may lead to communication problems, resulting in more intergenerational relationship problems (Tseng & Fuligni, 2001; Uba, 1994). Further research is needed to delineate the relative contributions of the various aspects of parent-child discrepancies (e.g., discrepancies in language, values, cultural practices) to psychological distress.

In summary, the present study is one of the first to compare the distress associated with Asian immigrant father-child conflicts and the distress associated with Asian immigrant mother-child conflicts. While mother-child conflicts were associated with
psychological distress, father-child conflicts were not. Additionally, the results of the present study were consistent with studies which found no significant relationship between acculturation discrepancies and psychological distress (e.g., Sam & Virta, 2003). This finding is consistent with previous studies which indicated that factors related to Asian family values (e.g., social support, interdependence) protect Asian immigrant youth from the potentially negative effects of family conflicts (Kwak, 2003; Lee et al., 2005; Su et al., 2005). The relationship between acculturation discrepancies and psychological distress may have been non-significant due to the fact that language discrepancies were not included as part of the acculturation discrepancies. Future studies should include language as a dimension of acculturation.

**Psychological Impact of Parent and Child Acculturation Levels**

The results of the present study also demonstrated that Asian Canadian young adults’ acculturation to the Canadian culture was an important predictor of psychological distress. These findings are consistent with the current acculturation literature, which indicates that immigrants who have higher English proficiency (Kuo & Roysircar, 2004; Lee & Chen, 2000) and are oriented towards the mainstream culture (i.e., assimilation or integration), have better psychological adjustment (Berry, 1997; Farver et al., 2002; Lay et al., 1998; Nguyen et al., 1999; Oh, Koeske, & Sales, 2002; Oppedal et al., 2004; Ryder et al., 2000; Thoman & Suris, 2004; Wong, 2001; Yeh, 2003; Ying, 1995). The negative relationship between Canadian acculturation levels and psychological distress may reflect the fact that those who have lived in Canada longer tend to experience less acculturative stress (Wilton & Constantine, 2003) and tend to be more oriented towards the Canadian culture (Kuo & Roysircar, 2004). At the same time, families who have resided in Canada
for longer periods of time have already undergone a period of transition and tend to be more stable than families who have recently arrived in the country. Immigrant young adults with a stronger orientation towards the Canadian culture also tend to be better equipped to succeed in school (Nguyen et al., 1999) and tend to experience less discrimination (Goto, Gee, & Takeuchi, 2002), resulting in better psychological adjustment.

The results of the present study not only suggested that Canadian acculturation predicts psychological adjustment, but that Canadian acculturation levels of Asian Canadian young adults are more important predictors of psychological distress than parent acculturation levels and parent-child acculturation discrepancies. In addition, the participants’ Canadian acculturation levels predicted psychological distress over and above the effects of intergenerational conflicts. These results may be related to the fact that an individual who is highly proficient in English and ascribes to Canadian values (i.e., individualistic values, such as competitiveness) has an advantage in terms of succeeding academically and attaining a good job in Canada. Research has demonstrated that higher English proficiency and mainstream acculturation levels are associated with better school adjustment (Nguyen et al., 1999; Yu et al., 2003) and academic achievement (Farver, Bhadha, & Narang, 2002; Nguyen et al., 1999; Ying et al., 2004) among Asian immigrant youths. In general, higher educational achievement has been associated with higher SES and better psychological adjustment (Rumbaut, 1996). Thus, an Asian Canadian young adult who is more acculturated to the Canadian culture may experience less psychological distress.
Moreover, educational achievement and career aspirations are primary concerns for Asian Canadian young adults and their families. Academic achievement and attaining a good career tend to be emphasized in traditional Asian families, as these goals are associated with bringing honour to the family (Baptiste, 1993; Fuligni et al., 1999; Kim et al., 1999; Markus & Kitayama, 1991; Uba, 1994). Asian immigrant young adults may feel a tremendous amount of pressure to succeed academically because of the sacrifices many of their parents have made for them (Tseng, 2004). Furthermore, Asian immigrant parents may believe that their children’s high academic achievements will improve their families’ quality of life and decrease the likelihood that their children will experience racism (Uba, 1994). Therefore, Asian Canadian young adults who are less acculturated to the Canadian culture and have poorer academic achievement may feel ashamed, leading to heightened psychological distress.

Asian immigrant children often find themselves in a difficult position because in order to please their parents by succeeding academically, it is important to be oriented towards the mainstream culture (Baptiste, 1993). However, acculturation to the mainstream culture may also impact behaviours which Asian immigrant parents perceive to be undesirable (e.g., dating), resulting in intergenerational conflicts and psychological distress. On the other hand, adopting traditional Asian values by complying with family obligations (e.g., household tasks, helping to care for siblings) can result in poorer academic achievement (Tseng, 2004) because less time is available for focusing on academics, leading to more psychological distress. These competing sources of distress highlight the complexity of the issues related to acculturation discrepancies,
intergenerational conflicts, and psychological adjustment among Asian immigrant family members.

The present study’s results regarding the effects of Asian immigrant young adults’ Canadian acculturation levels on their psychological well-being demonstrated different results from those of Costigan and Dokis’ (2006) study; in their study, parent-child acculturation discrepancies seemed to be more important determinants of psychological adjustment than parents’ and children’s individual acculturation levels. Mother-child discrepancies on Chinese language use and father-child discrepancies on Chinese values predicted depression, whereas child Chinese and Canadian acculturation levels (in terms of language use, media use, and values) did not predict depression. The results of Costigan and Dokis’ study may be different from the results of the present study due to different sample characteristics. Costigan and Dokis’ study involved a sample of young adolescents (aged 9 to 15). The issues of academic achievement and career aspirations are not as salient for young adolescents as they are for young adults. Thus, Canadian acculturation levels may not have been as important predictors of psychological distress in this sample. Alternatively, the fact that intergenerational acculturation discrepancies did not predict psychological distress in the present study may have been a function of how the data were treated. That is, acculturation discrepancies were derived by taking the absolute value of the difference between each participant’s acculturation score and his or her parents’ perceived acculturation score. Research suggests that difference scores may be less reliable than regular scores and may result in a restricted range (Griffin, Murray, & Gonzalez, 1999; Peter, Churchill, & Brown, 1993). Costigan and Dokis used
a regressional method to analyze acculturation discrepancies, which may partially explain why their findings varied from the findings of the present study.

The results of the present study suggested that although intergenerational conflicts were associated with psychological distress, lower Canadian acculturation on the part of the participants was a more salient contributor to distress among Asian immigrant young adults. Self Canadian acculturation levels were also more predictive of psychological distress than parent acculturation levels and parent-child acculturation discrepancies. One interpretation of these findings is that academic achievement, which is related to Canadian acculturation, is an important predictor of psychological adjustment, especially during young adulthood. In the context of traditional Asian values, the extraordinary amount of pressure to succeed academically may override other sources of distress which arise within the family.

Limitations

The present study has some limitations which should be addressed. The results of the present study implied that conflicts between the Asian Canadian young adult participants and their parents lead to their psychological distress. However, given the correlational nature of the analyses, the causal relationship between these variables is not clear. It is possible that individuals who had poorer psychological adjustment to begin with were having more difficulties interacting with their parents, leading to more intergenerational conflicts. Additionally, while this study found that parent-child

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3 Costigan and Dokis (2003) used hierarchical regression analyses in their study. The main effects of children’s, fathers’, and mothers’ acculturation levels were entered in block 1, followed by 2-way parent-child interactions in block 2. Significant interactions indicated significant acculturation discrepancy effects for intergenerational conflict, depression, and achievement motivation.
acculturation discrepancies contributed to intergenerational conflicts, it is equally conceivable that heightened intergenerational conflicts resulted in more parent-child acculturation discrepancies. For example, an Asian immigrant young woman who has been experiencing difficulties with her parents may decide to engage in more independent behaviours in order to rebel from her parents- a reaction which would further remove her from traditional Asian values.

The present study also did not take into account the fact that other extraneous variables besides the demographic variables might have mediated the relationships between acculturation discrepancies, intergenerational conflicts, and psychological distress. In reality, many psychological processes and environmental and personality variables may influence the outcomes of intergenerational acculturation discrepancies and conflicts. For instance, coping is potentially an important mediator in interpersonal relationship research (Kuo & Gingrich, 2004). The particular coping style an individual chooses to use to deal with a situation can determine the extent to which this situation leads to psychological distress. Recent studies have revealed that certain coping strategies (i.e., direct coping) protect individuals against the negative effects of family conflicts in Asian families, while other coping strategies (i.e., indirect coping) may contribute to more psychological distress (Lee & Liu, 2001). Su et al.’s (2005) study also suggested that the effectiveness of various coping strategies depends on the severity of the family conflict among Asian families. When family conflict was high, seeking social support was associated with less distress whereas problem solving coping was associated with more distress; when family conflict was low, none of the coping strategies mediated the relationship between family conflict and distress. Therefore, future studies should
incorporate coping and/or other critical psychosocial factors (e.g., self-construal) into the study of acculturation discrepancies, intergenerational conflict, and psychological distress among immigrant populations.

Some other limitations are related to participant recruitment. Due to the nature of the study's recruitment, the sample was not random. Participants recruited through the snowball technique were asked to pass on recruitment e-mails to their friends. Thus, these individuals were likely to have similar demographic, ethnic, family, educational, and socioeconomic backgrounds. This may explain why the majority of the sample was comprised of second generation, Chinese Canadian females with at least some post-secondary education who were Canadian citizens and were living with their parents. Thus, the present study's results must be viewed with caution in terms of their generalizability to other Asian Canadian young adults.

Another limitation is related to the methodology of the present study. All participants completed Web-based questionnaires, which may have resulted in inaccurate data. Some participants had difficulties submitting some of their Web-based questionnaires, due to computer problems. Consequently, they may have filled out a questionnaire a second time. Their answers may have been slightly different from their original answers when they resubmitted their responses to these questionnaires.

The present study also relied on self-report measures of psychological distress, intergenerational conflict, and acculturation. These variables might be susceptible to social desirability because they might carry certain stigma for these respondents. This is especially true in Asian populations. Asian cultures tend to discourage public discussion of family problems, as it is considered to be shameful, embarrassing, and indicative of
family failure (Sue & Sue, 2003). Research also suggests that Asian individuals tend to underutilize mental health services and underreport personal and emotional concerns, perhaps in order to save “face” (Tracey, Leong, & Glidden, 1986; Uba, 1994). In the present study, social desirability may have had a confounding influence on the results; that is, psychological distress and intergenerational conflicts may have been underreported in the present study.

Finally, perceived parent-child acculturation discrepancies, rather than actual acculturation discrepancies, were measured in the present study. Research has suggested that perceived acculturation discrepancies might not correspond to actual discrepancies. For example, Merali (2002) compared perceived with actual acculturation discrepancies among 50 Hispanic refugee parent-adolescent dyads. The study revealed that immigrant parents and children tended to significantly underestimate or overestimate actual acculturation discrepancies. This suggests that at least a portion of the participants might have underestimated or overestimated their intergenerational acculturation discrepancies in the present study. Unfortunately, studies have not been conducted which compare perceived and actual discrepancies in terms of their abilities to predict intergenerational conflict and psychological distress. However, since intergenerational conflicts involve the subjective appraisal of interpersonal relationships, one’s subjective sense of intergenerational acculturation discrepancies may be more relevant than actual discrepancies. Further research is needed to clarify the relationships between perceived and actual parent-child acculturation discrepancies and familial/psychological outcome variables.
Clinical Implications

There is a common misperception that Asian immigrants represent a "model minority", suggesting that this group has minimal mental health problems or stresses (Sue & Sue, 2003; Uba, 1994). However, as demonstrated by the present study, cultural transition can be very stressful, and can contribute to intergenerational conflicts among members of Asian immigrant families. Furthermore, the present study demonstrated that intergenerational acculturation discrepancies and conflicts were stressors which continued to be experienced by Asian Canadian young adults. Acculturation-related stressors tend to continue in young adulthood and may lead to psychological adjustment problems for these young adults. It is important that mental health professionals resist adopting the "model minority" stereotype and become aware of the unique familial challenges which Asian immigrant young adults face.

At the same time, mental health professionals need to be aware that Asian immigrants have a tendency to underreport psychological problems and underutilize psychological services (Sue & Sue, 2003; Uba, 1994). This is an important national health concern. A significant proportion of the Asian young adult population may not be receiving assistance for their psychological difficulties. Several reasons for the underutilization of psychological services have been proposed, including a cultural stigma against mental illness, cultural conceptions of mental illness, family interdependency and collective coping, suspicion of non-Asian therapists, lack of awareness about mental health services, lack of culturally sensitive professionals, and lack of accessibility (Uba, 1994). Mental health service utilization may be increased among Asian Canadian young adults if mental health professionals consider the cultural and familial context of the presenting problems. For example, if an Asian young adult
seeks help for depression, the therapist may pay special attention to intergenerational relationships and explain to the client that acculturation-related intergenerational conflicts are common among Asian immigrant families. The use of these culturally sensitive approaches may decrease the likelihood of client dissatisfaction and premature therapy termination. Furthermore, recently arrived Asian immigrants need to be made aware of common family problems which occur during cultural transitions and the mental health services available to them. These components could be integrated into existing immigrant settlement services.

The findings of the present study also help point towards some more effective approaches which can be used throughout the course of psychotherapy with Asian immigrant individuals and families. First, it is important that Asian immigrant clients are made aware of the fact that parent-child acculturation discrepancies are likely related to intergenerational conflicts. Normalizing and reframing intergenerational conflicts in terms of natural by-products of cultural transition may help promote family cohesion and more adaptive communication among family members (Sue & Sue, 2003). Without such an understanding, Asian immigrant parents may erroneously attribute intergenerational conflicts to their children’s defiance and Asian immigrant children may simply attribute these conflicts to their parents’ abuse of authority (Baptiste, 1993). Second, the present study suggests that intergenerational acculturation discrepancies and conflicts are not experienced uniformly for both parents. Thus, in order to fully understand the interpersonal dynamics in Asian immigrant families, therapists need to specifically discuss the impact of acculturation discrepancies and conflicts with their clients’ mothers and fathers separately (i.e., as opposed to discussing parents in general). Therapists
should pay particular attention to Asian immigrant daughters' relationships with their mothers, as the present study indicated that conflicts with mothers were associated with more psychological distress. Furthermore, the results of the present study suggest that it may be beneficial to focus therapy on issues related to Canadian acculturation when working with Asian young adults' relationships with their fathers, and on issues related to Asian cultural identification when working with Asian young adults' relationships with their mothers. Finally, the present study demonstrated that self Canadian acculturation levels are more important predictors of psychological distress than Asian acculturation levels and parent-child acculturation discrepancies. Thus, helping clients adjust to the Canadian culture may be one important intervention to use in working to help Asian immigrant young adults reduce their psychological distress. This could include the use of practical problem solving such as helping clients access resources to help them learn English, educating clients on various aspects of Canadian society, and introducing the client to community groups and social service agencies.

Recommendations for Future Research

The present study investigated the psychological impact of perceived parent-child acculturation discrepancies and intergenerational conflicts in a sample of Asian Canadian young adults. Research suggests that perceived acculturation gaps may not be reflective of actual discrepancies (Merali, 2002). However, the degree to which perceived versus actual acculturation discrepancies between children and parents predict psychological distress is currently unclear. The majority of the existing studies have measured perceived acculturation discrepancies (e.g., Lee, et al., 2000; Sharir, 2002; Tang & Dion, 1999), despite the fact that actual acculturation discrepancies have the potential to better
predict psychological distress in immigrant children. For example, Merali (2002) suggested that the misappraisal of acculturation gaps can sometimes result in depression in immigrant youths. Children who perceive intergenerational acculturation gaps to be wider than they actually are likely to feel that they need to act differently at home, as compared to how they act outside of home. This may negatively impact the ethnic identity development of these individuals. On the other hand, parents who overestimate acculturation gaps may believe that they are inadequate parents, leading them to feel depressed. Further research comparing perceived and actual acculturation discrepancies is needed to accurately assess the relationship between these variables. Moreover, future studies should explore the relationships among acculturation gap misappraisal, intergenerational conflicts, and psychological distress. Future studies should also explore the psychological effects of acculturation discrepancies and intergenerational conflicts from the perspective of parents, since the majority of the existing studies have focused solely on Asian Canadian/American children.

In addition, the majority of studies on intergenerational conflicts among Asian immigrant families have investigated parent-adolescent relationships, while less research has focused on Asian immigrant young adults and their relationships with parents. Even less is known about the developmental trajectory of parent-child acculturation discrepancies and intergenerational conflicts among Asian immigrant family members. To date, only one study directly compared different age groups of Asian Americans in terms of intergenerational conflicts (Greenberger & Chen, 1996). This study found that Asian American young adults reported more intergenerational conflicts than Asian American adolescents. This is in contrast to the literature on the developmental trajectory
of intergenerational conflicts among non-immigrant European populations, in which intergenerational conflicts tend to decrease in late adolescence and young adulthood (Laursen & Collins, 1994). Research on the developmental course of intergenerational difficulties is therefore especially needed for Asian immigrant families because research on intergenerational conflicts among non-immigrant family members in the extant literature may not generalize to Asian immigrant populations. Longitudinal or cross-sectional research would help elucidate the ways in which Asian immigrant intergenerational conflicts might develop over time.

Future studies should also investigate the mediation effects of other psychosocial variables such as self-construal and coping. Markus and Kitayama (1991) described self-construals in terms of independence and interdependence, which are said to define the thoughts, emotions, and behaviours of individuals. The independent self-construal is characterized by a self that is separate from social context (Markus & Kitayama, 1991) and is emphasized in individualistic cultures, such as the United States and Canada. Conversely, collectivistic cultures (including Asian cultures) emphasize the interdependent self-construal, which is typified by social interconnectedness and the definition of the self based on social context (Kim et al., 1999; Markus & Kitayama, 1991; Uba, 1994). Despite the fact that self-construal has a major impact on interpersonal relationships (Markus & Kitayama, 1991), no studies have been conducted on the mediating effects of self-construals on acculturation discrepancies, intergenerational conflicts, and psychological distress. For example, those with interdependent self-construals tend to value maintaining family harmony. They may therefore experience more distress if there are large parent-child acculturation discrepancies than would people
with more independent self-construals. Likewise, intergenerational conflicts may be more distressing to those with more interdependent self-construals than those with more independent self-construals. Additionally, preliminary research demonstrates that coping does mediate the relationship between intergenerational conflict and psychological distress among Asian immigrant youths (Lee & Liu, 200, Lee et al., 2005). However, the existing studies are limited by the fact that they incorporate Western models of coping, which may not apply to Asian populations. More studies are needed to determine the relative utility of using various coping strategies, including more emic forms of coping (e.g., collective coping), to deal with intergenerational conflicts in Asian immigrant families.

Finally, the correlational nature of the present study is also a limitation, since causal relationships between the variables could not be drawn. In the existing literature, correlational studies cannot address whether or not heightened psychological distress leads to more intergenerational conflicts or vice versa. In general, cross-cultural studies have only begun to incorporate more complex forms of data analysis, including latent variable models, such as path analysis and structural equation modelling, into research (Nesdale, Rooney, & Smith, 1997; Oh et al., 2002; Oppedal, Roysamb, & Sam, 2004; Sonderegger & Barrett, 2004). Latent variable models allow researchers to investigate more complex, multivariate interrelationships between variables, including identifying indirect and direct relationships and determining the direction of the relationships between variables (Kline, 1991). However, these methods have not yet been utilized in intergenerational conflict studies. A large number of variables (e.g., family composition, personality, self-construal, coping, ethnic identity) can affect intergenerational conflicts
and the distress associated with these conflicts, although it is currently unclear how these variables are related to each other. Latent variable models have the potential to promote intergenerational conflict research by addressing some of these data analysis issues.

Conclusion

The results of the present study support the findings of previous intergenerational relationship research among Asian immigrant families. Greater perceived parent-child acculturation discrepancies experienced by Asian Canadian young adults were associated with more intergenerational conflicts, both with fathers and mothers. The present study also extended previous research in the area by measuring acculturation discrepancies separately for each parent and by using a bilineal acculturation framework. Thus, this study provided new insights into the complexities of father-child and mother-child intergenerational conflicts in the context of negotiating cultural values. Mother-child Asian acculturation discrepancies predicted more mother-child conflicts, whereas father-child acculturation discrepancies did not significantly predict father-child conflicts. Furthermore, more mother-child conflicts were linked to more psychological distress. However, father-child conflicts were not found to be significantly distressing. Surprisingly, a low self Canadian acculturation level was a more important predictor of psychological distress than parent acculturation levels and parent-child acculturation discrepancies. Overall, the present study expanded the current literature on Asian immigrant family research by introducing the use of bilineal acculturation model and by examining Asian Canadian young adults’ experiences of conflict with each of their parents. Moreover, the results of the present study clarified ways in which to facilitate Asian Canadian immigrant families’ cultural transitions. These include reframing
intergenerational conflicts in terms of normal components of cultural transition and discussing conflicts with each parent separately. The present study also suggested that helping Asian Canadian young adults adjust to the Canadian culture can help minimize the psychological problems they may experience.
APPENDICES

APPENDIX A

Demographic Survey

1. How old are you?: ______________

2. What is your birth date? ________ (month) ________ (day) ________ (year)

3. Which city do you currently live in? ______________

4. Number of years of post-secondary education completed? ________

5. What is your area of studies fall under? (please check one)
   __ Arts & Social Sciences  __ Science  __ Education
   __ Engineering  __ Law  __ Nursing
   __ Human Kinetics  __ Other

   If other, please specify: ________________________

6. Your gender? (please circle): male     female

7. What is your father’s occupation?: ________________________

8. What is your mother’s occupation?: ________________________

9. What is the highest level of education completed by your father? (please check one):
   __ did not complete high school
   __ high school diploma

   __ some college or university education
   __ college diploma

   __ professional degree (i.e., M.D., doctorate, etc.)
   __ university degree

10. What is the highest level of education completed by your mother? (please check one):
    __ did not complete high school
    __ high school diploma

    __ some college or university education
    __ college diploma

    __ professional degree (i.e., M.D., doctorate, etc.)
    __ university degree
11. What is your family’s estimated annual income (i.e., mother and father’s joint income)? (please check one):

- less than $10 000
- $10 000-19 999
- $20 000-29 999
- $30 000-39 999
- $40 000-49 999
- $50 000-59 999
- $60 000-69 999
- $70 000-79 999
- $80 000-89 999
- $90 000-99 999
- $100 000 and over

12. What is your country of birth? (please check one):

- Canada
- United States
- China
- Japan
- Korea
- Taiwan
- Thailand
- Vietnam
- Indonesia
- Philippines
- Laos
- Cambodia
- Indonesia
- Mongolia
- Tibet
- Malaysia
- Singapore
- Other

If other, please specify:__________

If you were not born in Canada, please answer the following two questions:

How long have you been living in Canada?: _______years _______months

How old were you when you first arrived in Canada?: _______ years old

13. What is your current immigration status? (please check one):

- refugee
- landed immigrant
- Canadian citizen

14. What is your mother’s country of birth? (please check one):

- Canada
- United States
- China
- Japan
- Korea
- Taiwan
- Thailand
- Vietnam
- Indonesia
- Philippines
- Laos
- Cambodia
- Indonesia
- Mongolia
- Tibet
- Malaysia
- Singapore
- Other

If other, please specify:__________
15. What is your father's country of birth? (please check one):

Canada  United States  China  Japan  Korea
Taiwan  Thailand  Vietnam  Indonesia  Philippines
Laos  Cambodia  Indonesia  Mongolia  Tibet
Malaysia  Singapore  Other

If other, please specify:__________

16. What is your heritage culture (i.e., ethnic origin)? (please check one):

Chinese  Japanese  Korean  Taiwanese  Thai
Vietnamese  Indonesian  Filipino  Laotian  Cambodian
Indonesian  Mongolian  Tibetan  Malaysian  Singaporean
Other

If other, please specify:__________

17. How well are you able to read English? (please check one):

not at all  not very well  somewhat  fairly well  very well

18. How well are you able to speak English? (please check one):

not at all  not very well  somewhat  fairly well  very well

19. How well are you able to write English? (please check one):

not at all  not very well  somewhat  fairly well  very well

20. How well are you able to understand English? (please check one):

not at all  not very well  somewhat  fairly well  very well
21. Besides English, which other language do you speak?

- not
- Mandarin
- Cantonese
- Japanese
- Korean

applicable

- Vietnamese
- Filipino
- Other

If other, please specify: ________________

22. How well are you able to read that other language listed above?

- not at all
- not very well
- somewhat
- fairly well
- very well

23. How well are you able to speak that other language?

- not at all
- not very well
- somewhat
- fairly well
- very well

24. How well are you able to write that other language?

- not at all
- not very well
- somewhat
- fairly well
- very well

25. How well are your parents able to read English?

- not at all
- not very well
- somewhat
- fairly well
- very well

26. How well are your parents able to speak English?

- not at all
- not very well
- somewhat
- fairly well
- very well

27. How well are your parents able to write English?

- not at all
- not very well
- somewhat
- fairly well
- very well

28. How well are your parents able to understand English?

- not at all
- not very well
- somewhat
- fairly well
- very well
29. Do you currently live with either of your parents? (please circle one):

Yes   No

30. For how many months out of the past 12 months have you lived with your parent(s)?
REFERENCES


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employment income, work activity in 2000, age groups and sex for total population 15 Years and over, for Canada, provinces and territories, 2001. (Catalogue number 97F0018XCB2001043). Retrieved June 9, 2006 from Statistics Canada:


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